



# QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES

TOTALS

DESCRIPTIONS

DETAILED SUMMARY OF QUANTITIES

										ROADWAY	RAILROAD	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
										52			52	45.53	CY	COMMON EXCAVATION	203.15				
										25			25	37.64	CY	EXCAVATION OF SURFACES AND PAVEMENTS	203.28				
										245			245	221.3	CY	TRENCH EXCAVATION OF EARTH	204.20				
										10			10	13.32	CY	GRANULAR BACKFILL FOR STRUCTURES	204.30				
										57			57	54.8	CY	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	301.26				
										35			35	0	TON	BITUMINOUS CONCRETE PAVEMENT (PG 58-28)	406.25				
										40			40	8.22	SY	REMOVAL OF CONCRETE OR MASONRY	529.26				
										150			150	154	LF	18" CPEP	601.0915				
										2			2	2	EACH	PRECAST REINFORCED CONCRETE PIPE DI WITH CAST IRON GRATE	604.25				SEE DRAINAGE DETAIL SHEET FOR GRATE TYPES
										3			3	3	EACH	PRECAST REINFORCED CONCRETE CURB DI WITH CAST IRON GRATE	604.30				SEE DRAINAGE DETAIL SHEET FOR GRATE TYPES
										216			216	216	LF	6 INCH UNDERDRAIN PIPE	605.10				
										32			32	34	LF	6 INCH UNDERDRAIN CARRIER PIPE	605.20				
										4			4	0	EACH	UNDERDRAIN FLUSHING BASIN	605.95				
										80			80	0	HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25				
										80			80	0	HR	TRUCK RENTAL	608.37				
										282			282	321	LF	VERTICAL GRANITE CURB	616.21				
										8			8	8	LF	REMOVAL OF EXISTING CURB	616.41				
										4			4	4.44	TON	BITUMINOUS CONCRETE GUTTERS AND TRAFFIC ISLANDS	616.47				
										160			160	182.5	SY	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	618.10				
										30			30	40	SF	DETECTABLE WARNING SURFACE	618.30				
										160			160	0	HR	UNIFORMED TRAFFIC OFFICERS	630.10				
										400			400	354.5	HR	FLAGGERS	630.15				
										1			1	1	LS	FIELD OFFICE, ENGINEERS	631.10				
											1		1	1	LS	TESTING EQUIPMENT, CONCRETE	631.16				
											1		1	0	LS	TESTING EQUIPMENT, BITUMINOUS	631.17				
										1			1	0.242	LU	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.25				
										1			1	1	LS	MOBILIZATION/DEMobilIZATION	635.11				
										1			1	1	LS	TRAFFIC CONTROL	641.10				
										638			638	601.4	LF	DURABLE 4 INCH WHITE LINE	646.400				
										670			670	511	LF	DURABLE 4 INCH YELLOW LINE	646.410				
										82			82	27.5	LF	DURABLE 24 INCH STOP BAR	646.480				
										4			4	4	EACH	DURABLE LETTER OR SYMBOL	646.490				
										92			92	90	LF	DURABLE CROSSWALK MARKING	646.500				
										2			2	2	EACH	DURABLE RAILROAD CROSSING SYMBOL	646.510				
										70			70	59.5	SY	GEOTEXTILE FOR SILT FENCE	649.51				
										2			2	25	LB	SEED	651.15				
										10			10	0	LB	FERTILIZER	651.18				
										0.05			0.05	0.025	TON	AGRICULTURAL LIMESTONE	651.20				
										0.05			0.05	0.225	TON	HAYMULCH	651.25				
										20			20	19.12	CY	TOPSOIL	651.35				
										1			1	1	LS	EPSC PLAN	652.10				
										80			80	1	HR	MONITORING EPSC PLAN	652.20				

PROJECT NAME: Fairtee  
 PROJECT NUMBER: STP 040-1(2)  
 FILE NAME: 90b118quant.xls  
 PROJECT MANAGER: J. Kaplan  
 DESIGNED BY: G. Shangraw  
 QUANTITY SHEET #1  
 PLOT DATE: 05/08/2008  
 DRAWN BY: G. Shangraw  
 CHECKED BY: J. Kaplan  
 SHEET 2 OF 28

# QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES

TOTALS

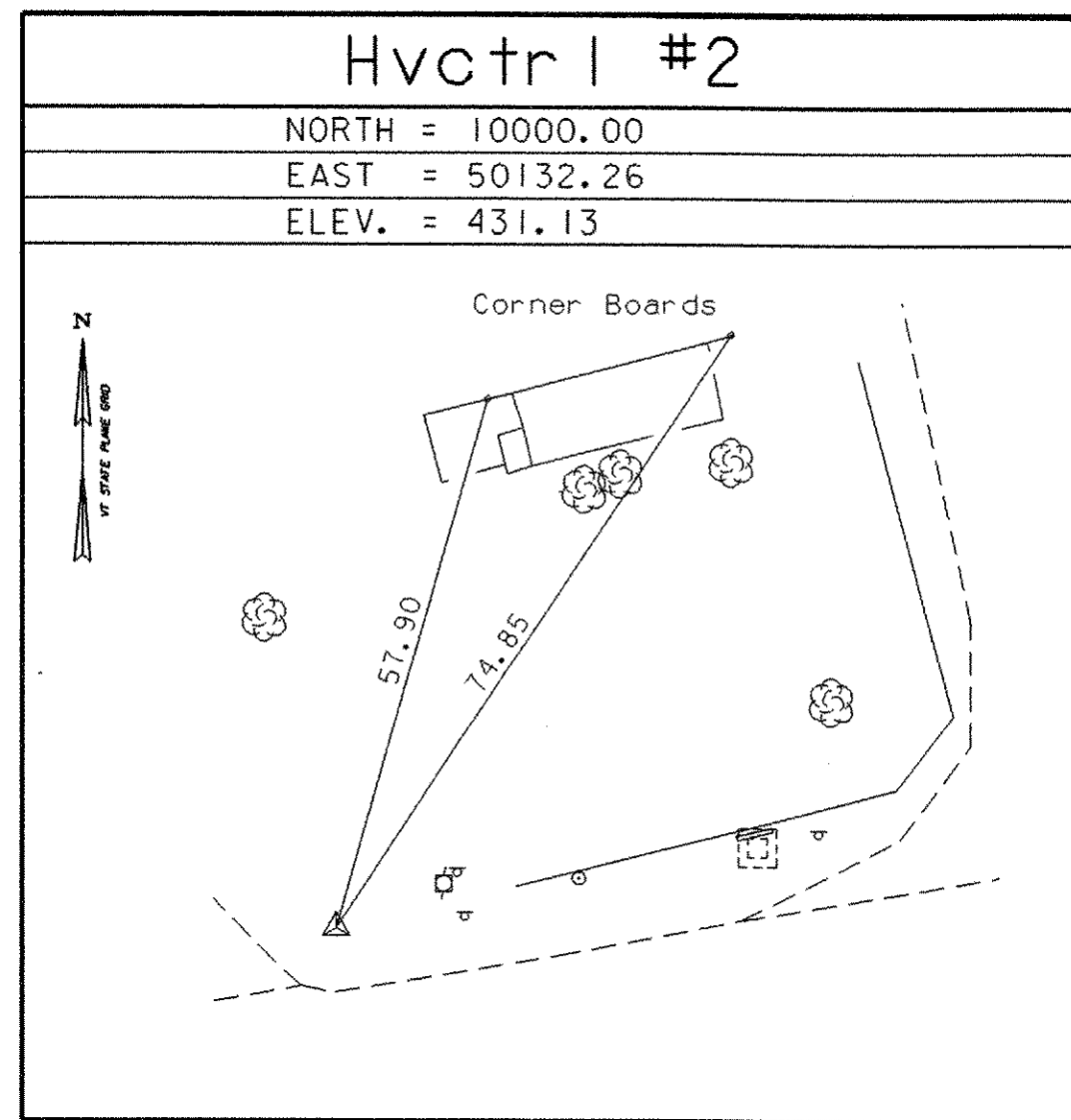
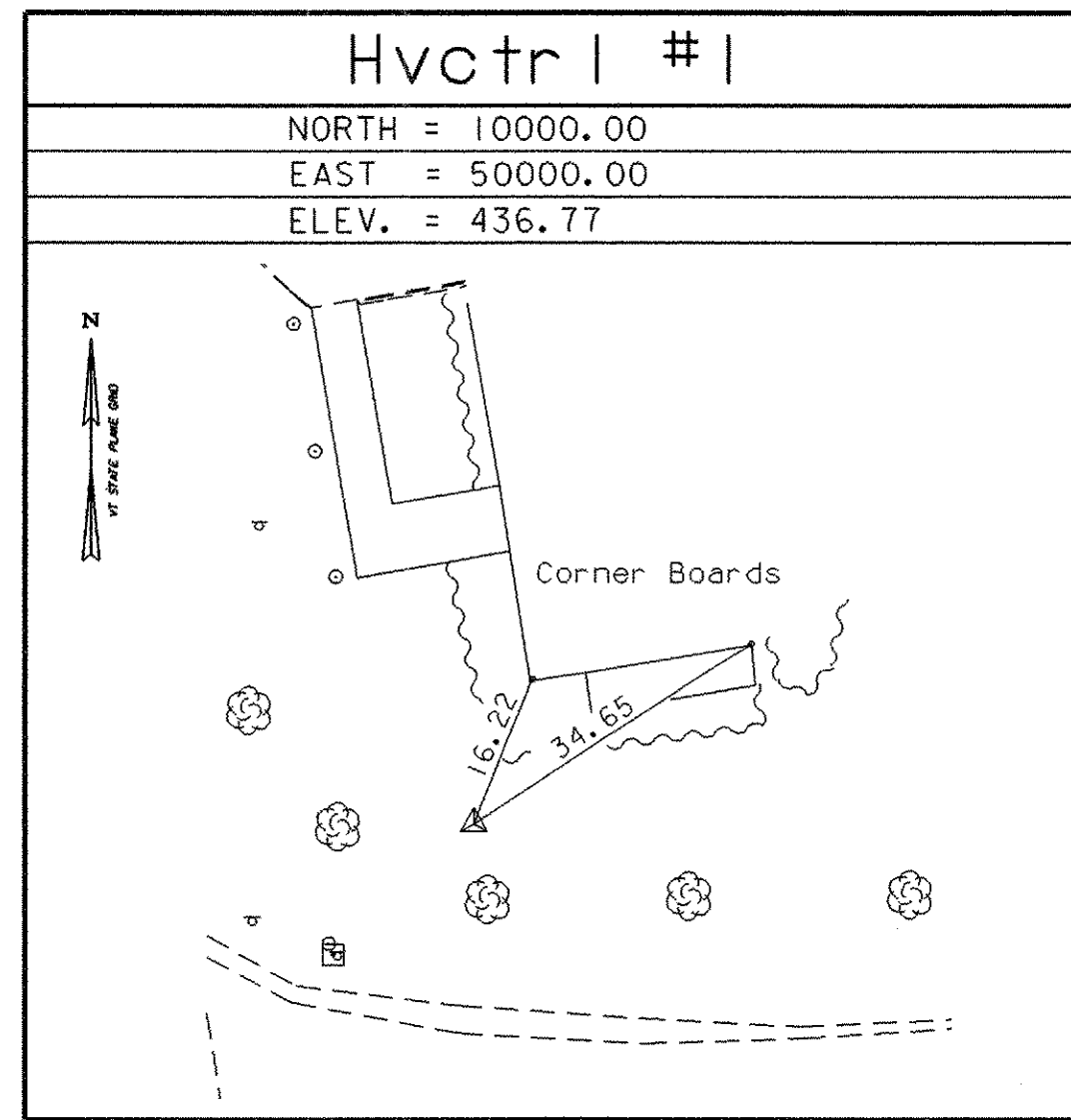
DESCRIPTIONS

DETAILED SUMMARY OF QUANTITIES

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
								ROADWAY	RAILROAD	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
								1			1	0	LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	652.30				
								120			120	0	SY	TEMPORARY EROSION MATTING	653.20				
								5			5	0	CY	TEMPORARY STONE CHECK DAM, TYPE I	653.25				
								6			6	4	EACH	INLET PROTECTION DEVICE, TYPE I	653.40				
								565			565	394	LF	PROJECT DEMARCATION FENCE	653.55				
								25.5			25.5	39.03	SF	TRAFFIC SIGNS, TYPE A	675.20				
								68			68	70	LF	FLANGED CHANNEL SIGN POST	675.301				
								14			14	16	EACH	REMOVING SIGNS	675.50				
								3			3	3	EACH	ERECTING SALVAGED SIGNS	675.60				
								70			70	0*	LF	ELECTRICAL CONDUIT (2") (PVC)	678.21				
								35			35	30.56	TON	S.A. BITUMINOUS CONCRETE PAVEMENT (PG 58-28) (MOD - PG 64-28)	900.580				
									100		100	0	EACH	SPECIAL PROVISION (REMOVAL AND REPLACEMENT OF CROSS TIES) *	900.620				
									80		80	77	HR	SPECIAL PROVISION (FLAGGERS, RAILROAD)	900.630				
									1		1	1	LS	SPECIAL PROVISION (RAIL-HIGHWAY CROSSING ACTIVE WARNING SYSTEM) (VT 25A - AARDOT 053-563Y)	900.645				
									1		1	1	LS	SPECIAL PROVISION (RECONSTRUCT RAIL-HIGHWAY CROSSING) (VT 25A - AARDOT 053-563Y)	900.645				
								68			68	*68	LF	ELECTRICAL CONDUIT (2")(PVC)(MOD.)	678.21				
									100		100	100	EACH	S.A., S.P.(REMOVAL & REPLACEMENT OF CROSS TIES)(MOD.) *	900.520				

GPS CONTROL POINTS

TRAVERSE TIES



NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

NORTH =
EAST =
ELEV. =

• MAIN TRAVERSE COMPLETED 9/14/01 by R. Gilman P.C. & P. Winters

ALIGNMENT TIES

NORTH =
EAST =

NORTH =
EAST =

NORTH =
EAST =

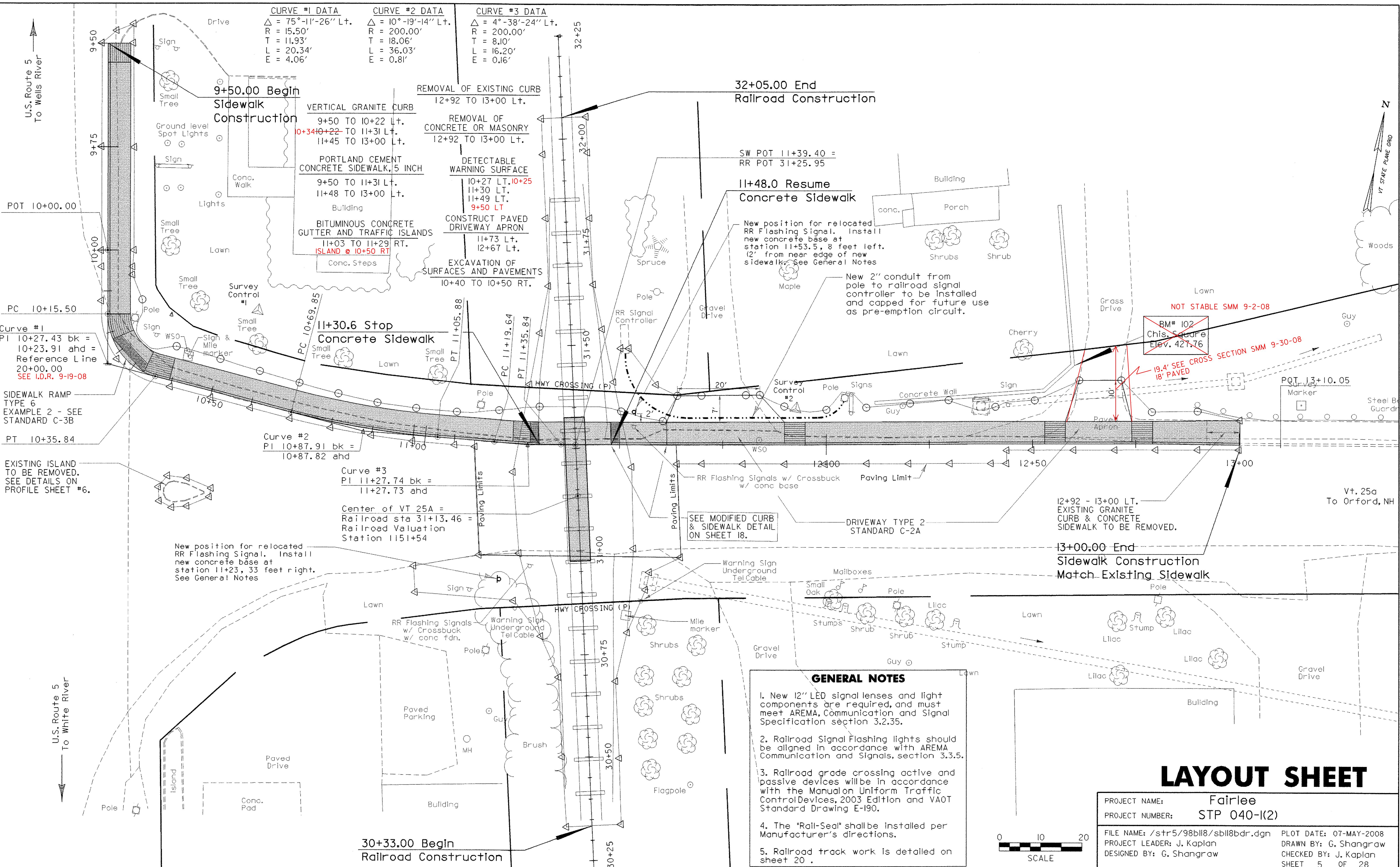
NORTH =
EAST =

NORTH =
EAST =

**TIE SHEET**

DATUM	
VERTICAL	NAVD 88
HORIZONTAL	Assumed
ADJUSTMENT	none

PROJECT NAME:	FAIRLEE	PLOT DATE:	07-MAY-2008
PROJECT NUMBER:	STP 040-I(2)	DRAWN BY:	R. Bullock
FILE NAME:	98b118/survey/xbl18+1.dgn	CHECKED BY:	J. KAPLAN
PROJECT LEADER:	J. KAPLAN	SHEET	4 OF 28
DESIGNED BY:	G. SHANGRAW		



U.S. Route 5  
To Wells River

POT 10+00.00  
PC 10+15.50  
Curve #1  
PI 10+27.43 bk =  
10+23.91 ahd =  
Reference Line  
20+00.00  
SEE I.D.R. 9-19-08

SIDWALK RAMP  
TYPE 6  
EXAMPLE 2 - SEE  
STANDARD C-3B

PT 10+35.84  
EXISTING ISLAND  
TO BE REMOVED.  
SEE DETAILS ON  
PROFILE SHEET #6.

U.S. Route 5  
To White River

CURVE #1 DATA	CURVE #2 DATA	CURVE #3 DATA
$\Delta = 75^\circ-11'-26''$ Lt.	$\Delta = 10^\circ-19'-14''$ Lt.	$\Delta = 4^\circ-38'-24''$ Lt.
$R = 15.50'$	$R = 200.00'$	$R = 200.00'$
$T = 11.93'$	$T = 18.06'$	$T = 8.10'$
$L = 20.34'$	$L = 36.03'$	$L = 16.20'$
$E = 4.06'$	$E = 0.81'$	$E = 0.16'$

**9+50.00 Begin Sidewalk Construction**

VERTICAL GRANITE CURB  
9+50 TO 10+22 Lt.  
0+3410+22- TO 11+31 Lt.  
11+45 TO 13+00 Lt.

PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH  
9+50 TO 11+31 Lt.  
11+48 TO 13+00 Lt.

BUILDING

BITUMINOUS CONCRETE GUTTER AND TRAFFIC ISLANDS  
11+03 TO 11+29 RT.  
ISLAND @ 10+50 RT

Conc. Steps

**REMOVAL OF EXISTING CURB**  
12+92 TO 13+00 Lt.

**REMOVAL OF CONCRETE OR MASONRY**  
12+92 TO 13+00 Lt.

**DETECTABLE WARNING SURFACE**  
10+27 Lt. 10+25  
11+30 Lt.  
11+49 Lt.  
9+50 Lt.

**CONSTRUCT PAVED DRIVEWAY APRON**  
11+73 Lt.  
12+67 Lt.

**EXCAVATION OF SURFACES AND PAVEMENTS**  
10+40 TO 10+50 RT.

**32+05.00 End Railroad Construction**

**11+48.0 Resume Concrete Sidewalk**

New position for relocated RR Flashing Signal. Install new concrete base at station 11+53.5, 8 feet left. (2' from near edge of new sidewalk. See General Notes

New 2" conduit from pole to railroad signal controller to be installed and capped for future use as pre-emption circuit.

NOT STABLE SMM 9-2-08

BM# 102  
Chis. Grade  
Elev. 427.76

19.4' SEE CROSS SECTION SMM 9-30-08

Curve #2  
PI 10+87.91 bk =  
10+87.82 ahd

Curve #3  
PI 11+27.74 bk =  
11+27.73 ahd

Center of VT 25A =  
Railroad sta 31+13.46 =  
Railroad Valuation  
Station 1151+54

New position for relocated RR Flashing Signal. Install new concrete base at station 11+23, 33 feet right. See General Notes

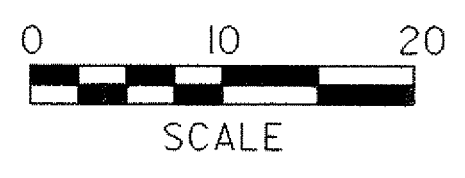
SEE MODIFIED CURB & SIDEWALK DETAIL ON SHEET 18.

12+92 - 13+00 Lt.  
EXISTING GRANITE CURB & CONCRETE SIDEWALK TO BE REMOVED.

**13+00.00 End Sidewalk Construction**  
Match Existing Sidewalk

**GENERAL NOTES**

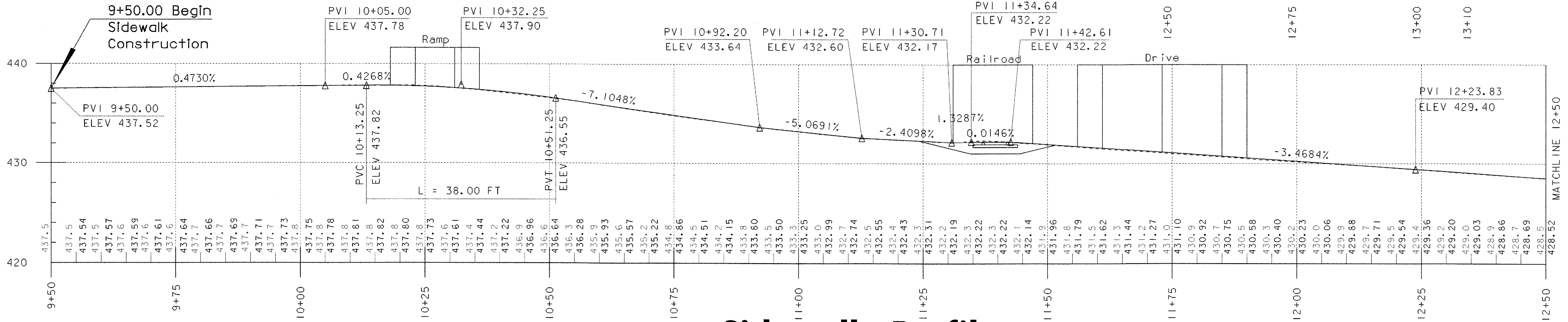
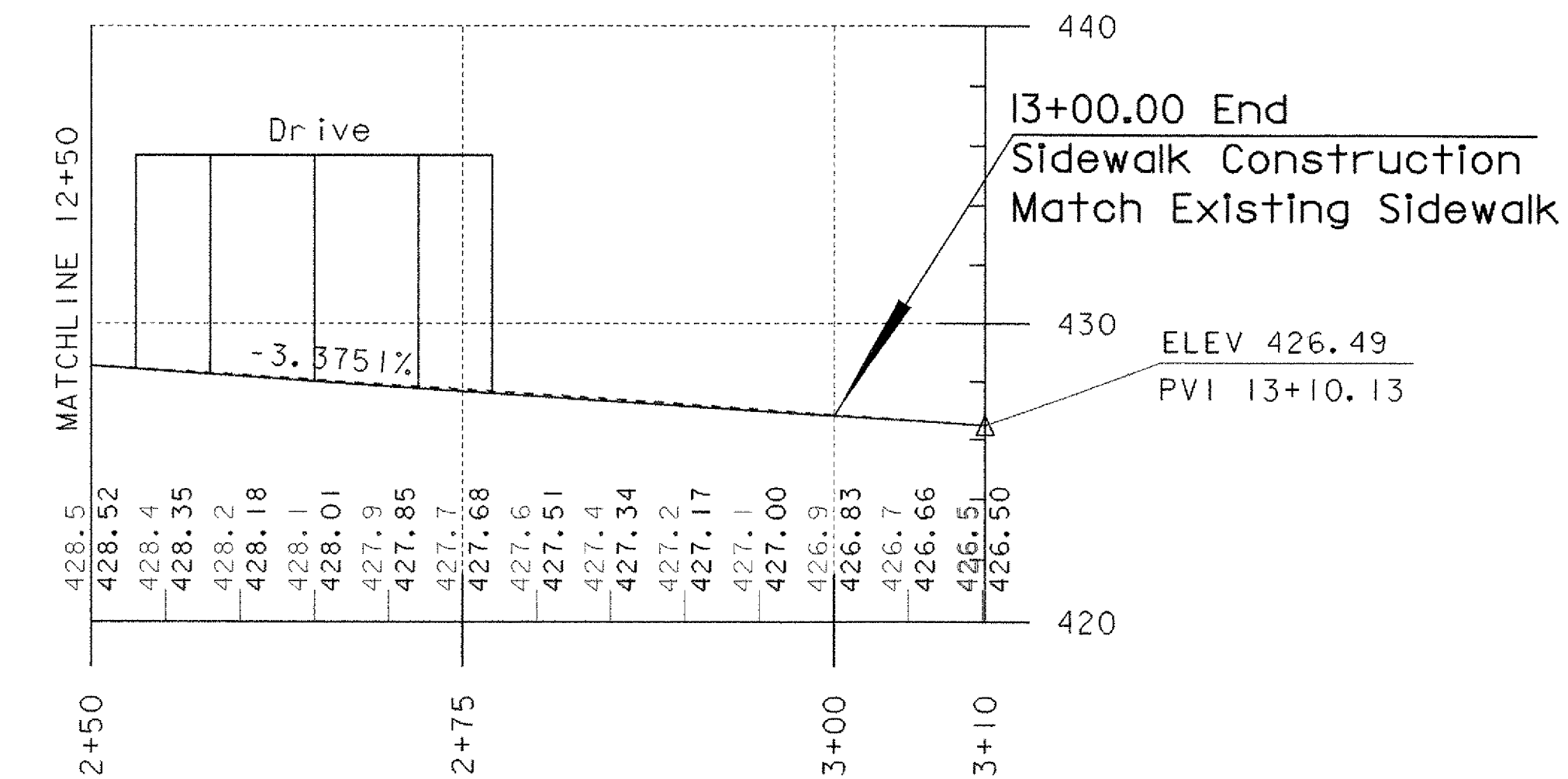
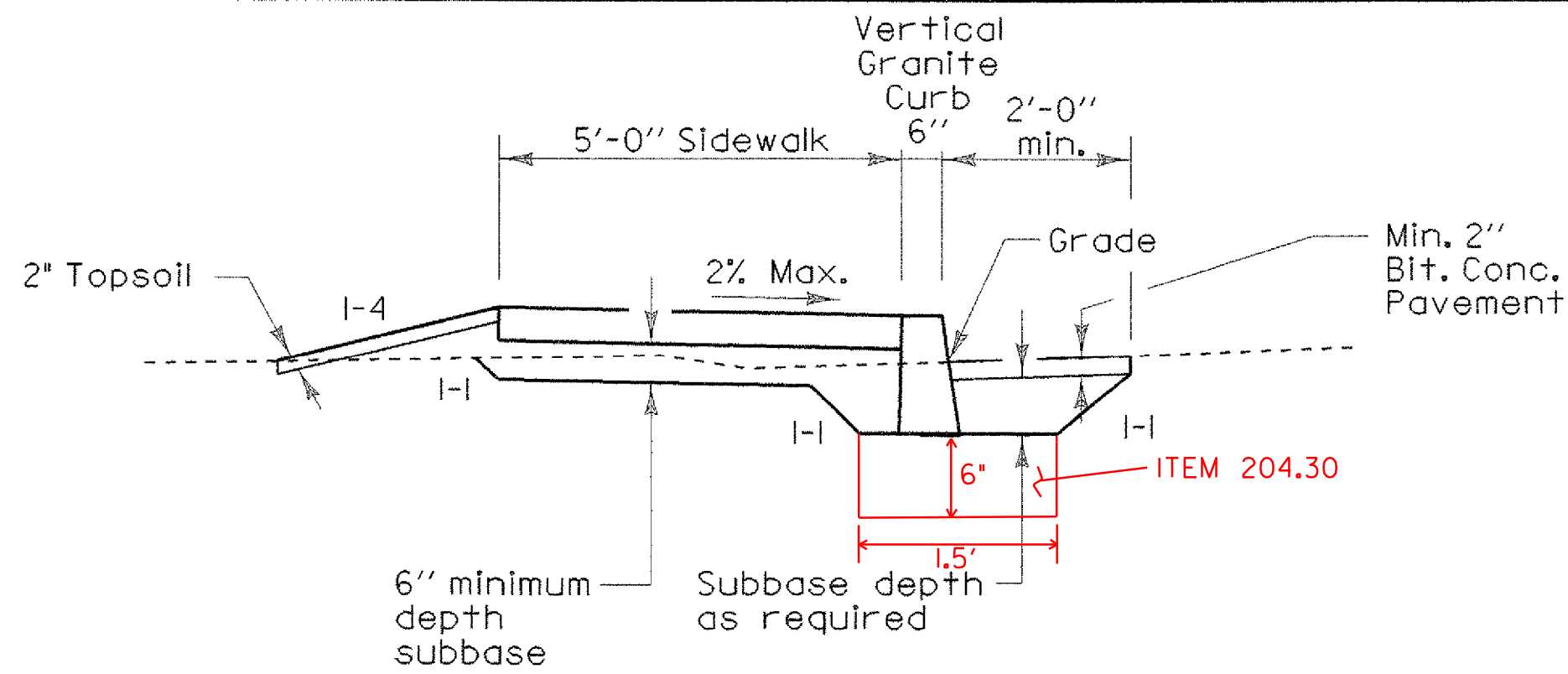
1. New 12" LED signal lenses and light components are required, and must meet AREMA, Communication and Signal Specification section 3.2.35.
2. Railroad Signal Flashing lights should be aligned in accordance with AREMA, Communication and Signals, section 3.3.5.
3. Railroad grade crossing active and passive devices will be in accordance with the Manual on Uniform Traffic Control Devices, 2003 Edition and VA0T Standard Drawing E-190.
4. The "Rail-Seal" shall be installed per Manufacturer's directions.
5. Railroad track work is detailed on sheet 20.



**LAYOUT SHEET**

PROJECT NAME:	Fairlee
PROJECT NUMBER:	STP 040-I(2)
FILE NAME:	/str5/98bl18/sbl18bdr.dgn
PROJECT LEADER:	J. Kaplan
DESIGNED BY:	G. Shangraw
PLOT DATE:	07-MAY-2008
DRAWN BY:	G. Shangraw
CHECKED BY:	J. Kaplan
SHEET	5 OF 28

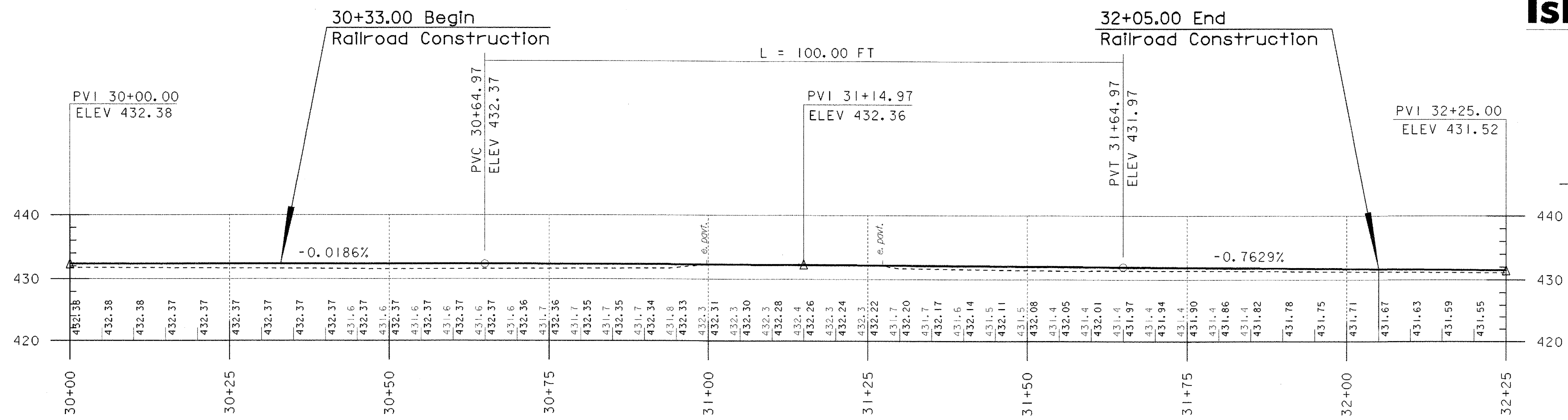
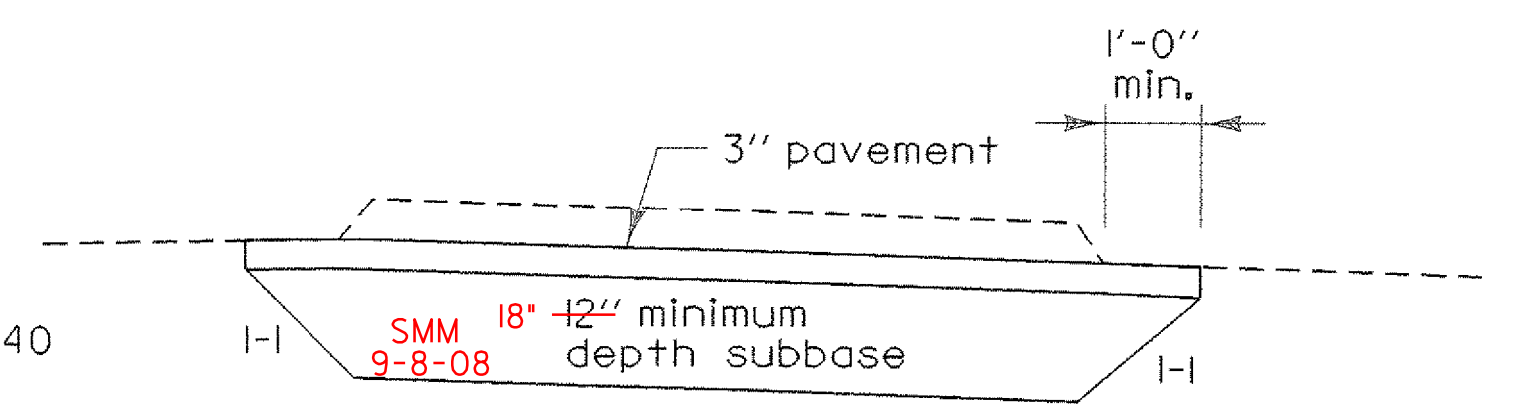
# Sidewalk Typical Section



## Sidewalk Profile

# Island Removal Detail

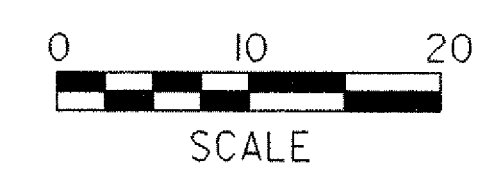
NOT TO SCALE  
Existing pavement to be sawcut prior to Removal of existing Island. Payment for saw cut will be incidental to pay item 203.28.



## Railroad Profile

## PROFILE SHEET

PROJECT NAME:	Fairlee
PROJECT NUMBER:	STP 040-(K2)
FILE NAME:	/str5/98b118/sb118bdr.dgn
PROJECT LEADER:	J. Kaplan
DESIGNED BY:	G. Shangraw
sb118pro.dgn	
PLOT DATE:	07-MAY-2008
DRAWN BY:	G. Shangraw
CHECKED BY:	J. Kaplan
SHEET	6 OF 28



U.S. Route 5  
To Wells River

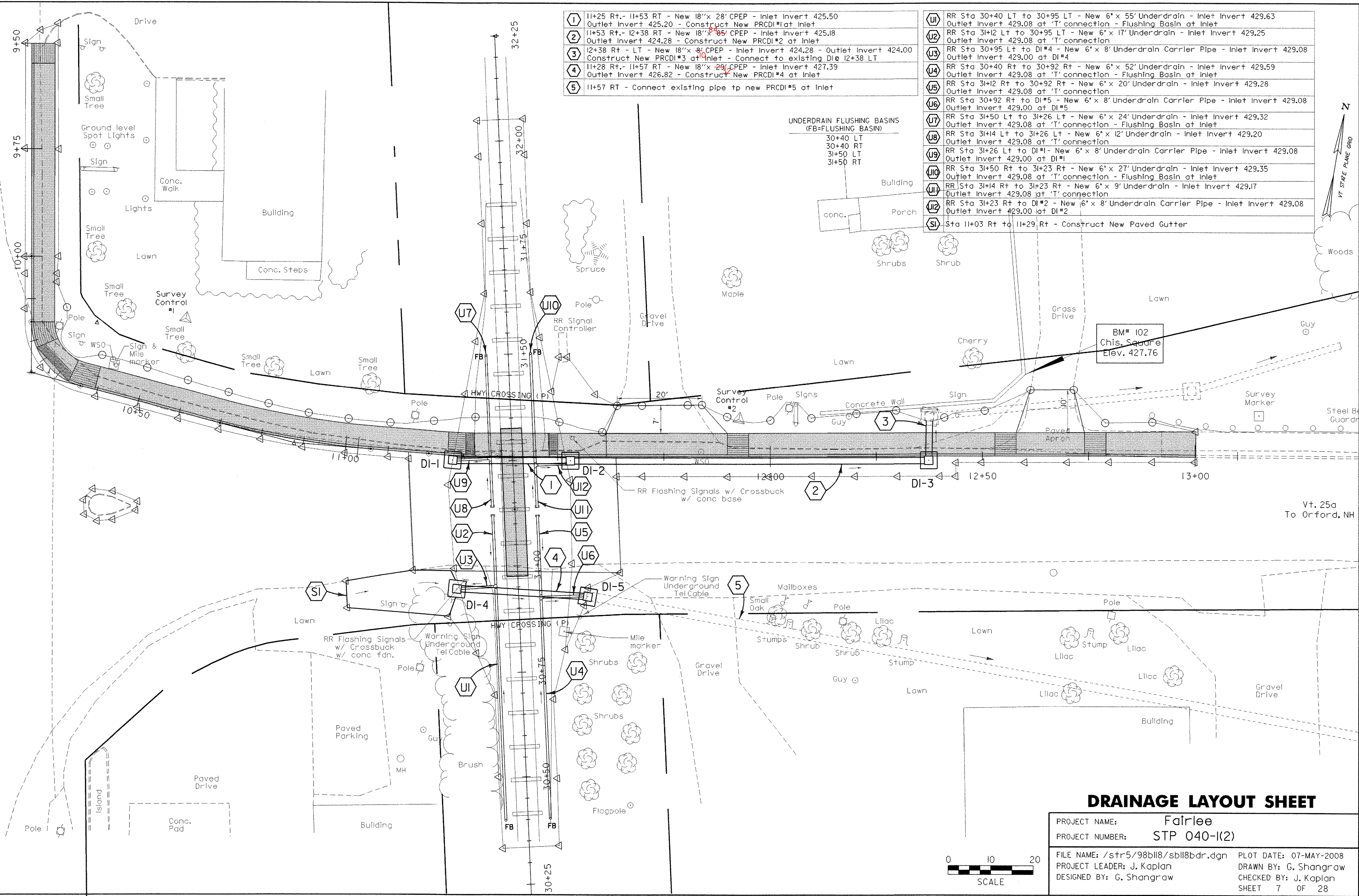
U.S. Route 5  
To White River

- 1 11+25 Rt. - 11+53 RT - New 18" x 28' CPEP - Inlet Invert 425.50  
Outlet Invert 425.20 - Construct New PRCDI#1 at Inlet
- 2 11+53 Rt. - 12+38 RT - New 18" x 28' CPEP - Inlet Invert 425.18  
Outlet Invert 424.28 - Construct New PRCDI#2 at Inlet
- 3 12+38 Rt - LT - New 18" x 8' CPEP - Inlet Invert 424.28 - Outlet Invert 424.00  
Construct New PRCDI#3 at Inlet - Connect to existing DI# 12+38 LT
- 4 11+28 Rt. - 11+57 RT - New 18" x 28' CPEP - Inlet Invert 427.39  
Outlet Invert 426.82 - Construct New PRCDI#4 at Inlet
- 5 11+57 RT - Connect existing pipe to new PRCDI#5 at Inlet

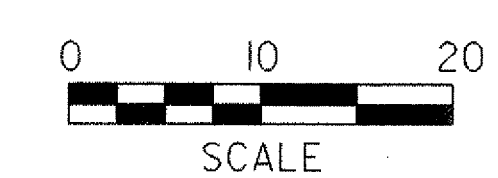
- U1 RR Sta 30+40 LT to 30+95 LT - New 6" x 55' Underdrain - Inlet Invert 429.63  
Outlet Invert 429.08 at 'T' connection - Flushing Basin at Inlet
- U2 RR Sta 31+12 Lt to 30+95 LT - New 6" x 17' Underdrain - Inlet Invert 429.25  
Outlet Invert 429.08 at 'T' connection
- U3 RR Sta 30+95 Lt to DI#4 - New 6" x 8' Underdrain Carrier Pipe - Inlet Invert 429.08  
Outlet Invert 429.00 at DI#4
- U4 RR Sta 30+40 Rt to 30+92 Rt - New 6" x 52' Underdrain - Inlet Invert 429.59  
Outlet Invert 429.08 at 'T' connection - Flushing Basin at Inlet
- U5 RR Sta 31+12 Rt to 30+92 Rt - New 6" x 20' Underdrain - Inlet Invert 429.28  
Outlet Invert 429.08 at 'T' connection
- U6 RR Sta 30+92 Rt to DI#5 - New 6" x 8' Underdrain Carrier Pipe - Inlet Invert 429.08  
Outlet Invert 429.00 at DI#5
- U7 RR Sta 31+50 Lt to 31+26 Lt - New 6" x 24' Underdrain - Inlet Invert 429.32  
Outlet Invert 429.08 at 'T' connection - Flushing Basin at Inlet
- U8 RR Sta 31+14 Lt to 31+26 Lt - New 6" x 12' Underdrain - Inlet Invert 429.20  
Outlet Invert 429.08 at 'T' connection
- U9 RR Sta 31+26 Lt to DI#1 - New 6" x 8' Underdrain Carrier Pipe - Inlet Invert 429.08  
Outlet Invert 429.00 at DI#1
- U10 RR Sta 31+50 Rt to 31+23 Rt - New 6" x 27' Underdrain - Inlet Invert 429.35  
Outlet Invert 429.08 at 'T' connection - Flushing Basin at Inlet
- U11 RR Sta 31+14 Rt to 31+23 Rt - New 6" x 9' Underdrain - Inlet Invert 429.17  
Outlet Invert 429.08 at 'T' connection
- U12 RR Sta 31+23 Rt to DI#2 - New 6" x 8' Underdrain Carrier Pipe - Inlet Invert 429.08  
Outlet Invert 429.00 at DI#2
- SI Sta 11+03 Rt to 11+29 Rt - Construct New Paved Gutter

UNDERDRAIN FLUSHING BASINS  
(FB=FLUSHING BASIN)

- 30+40 LT
- 30+40 RT
- 31+50 LT
- 31+50 RT



Vt. 25a  
To Orford, NH



### DRAINAGE LAYOUT SHEET

PROJECT NAME:	Fairlee	FILE NAME:	/str5/98b118/sb118bdr.dgn	PLOT DATE:	07-MAY-2008
PROJECT NUMBER:	STP 040-1(2)	PROJECT LEADER:	J. Kaplan	DRAWN BY:	G. Shangraw
		DESIGNED BY:	G. Shangraw	CHECKED BY:	J. Kaplan
				SHEET	7 OF 28



## 1.1 PROJECT DESCRIPTION

THIS PROJECT IS LOCATED ON US ROUTE 5 AND VERMONT ROUTE 25A IN FAIRLEE. BEGINNING AT A POINT APPROXIMATELY 100 FEET NORTH OF THE INTERSECTION OF US ROUTE 5 AND VERMONT ROUTE 25A AND EXTENDING EASTERLY ALONG VT ROUTE 25A FOR 275 FEET. THE PURPOSE OF THE PROJECT IS TO CONSTRUCT A NEW CONCRETE SIDEWALK FROM A POINT ON US ROUTE 5, TO MEET AN EXISTING SIDEWALK ON THE RECENTLY REHABILITATED TRUSS BRIDGE WHICH CROSSES THE CONNECTICUT RIVER TO ORFORD, NH.

THIS PROJECT INCLUDES A NEW CONCRETE SIDEWALK, A NEW RAILROAD CROSSING (RAIL, TIES, BALLAST AND CROSSING SIGNALS), NEW SUBSURFACE DRAINAGE AND NEW SIGNS AND TRAFFIC MARKINGS.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST ONE CONSTRUCTION SEASON.

TOTAL DISTURBED AREA (EXCLUDING WASTE, BORROW AND STAGING AREAS): 0.17 ACRES. THE ESTIMATED AREA OF WASTE, BORROW AND STAGING AREAS IS LESS THAN 0.83 ACRES.

## 1.2 SITE INVENTORY

### 1.2.1 OFF SITE DRAINAGE CHARACTERISTICS:

### 1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, PROXIMITY TO NATURAL OR MAN-MADE FEATURES:

THE CONNECTICUT RIVER IS APPROXIMATELY 100 FEET EASTERLY OF THE EASTERNMOST PORTION OF THE SITE.

### 1.2.3 TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES:

THE TERRAIN IS FLAT TO HILLY SURROUNDING THE PROJECT SITE. THERE ARE NUMEROUS COMMERCIAL AND RESIDENTIAL BUILDINGS WITH DRIVES ALONG US ROUTE 5.

THERE WILL BE NO UTILITY RELOCATION, BUT AN UNDERGROUND CONDUIT FOR SERVICE TO THE PROPOSED NEW RAILROAD CROSSING SIGNALS WILL BE INSTALLED DURING CONSTRUCTION OF THIS PROJECT.

### 1.2.4. VEGETATION

THE VEGETATION ON THE PROJECT SITE IS PRIMARILY LIMITED TO RESIDENTIAL LAWNS AND LANDSCAPED TOWN AND COMMERCIAL PROPERTY. THERE ARE SCATTERED TREES WHICH WILL NOT BE AFFECTED BY THE PROJECT. THERE ARE ALSO SOME HEDGES, SHRUBS AND GRASSY LAWNS.

### 1.2.5 SOILS

DUE TO THE MINIMAL IMPACT OF THE PROJECT, THE SOILS IN THE IMMEDIATE AREA OF DISTURBANCE WERE NOT INVESTIGATED. IT IS ASSUMED THAT ANY SOILS ENCOUNTERED DURING THE PROJECT CONSTRUCTION HAVE PREVIOUSLY BEEN DISTURBED, AND ARE LIKELY ENGINEERED MATERIALS TRUCKED IN FROM OFF-SITE LOCATIONS.

### 1.2.6 SENSITIVE RESOURCE AREAS:

NO "THREATENED & ENDANGERED SPECIES", PRIME AGRICULTURAL LAND, WETLANDS, OR CRITICAL HABITATS HAVE BEEN IDENTIFIED WITHIN THE PROJECT AREA. THE ONLY SENSITIVE AREA WITHIN THE PROJECT SITE IS THE CONNECTICUT RIVER.

## 1.3 RISK EVALUATION

THIS PROJECT IS DETERMINED TO BE NON-JURISDICTIONAL (I.E. < 1.0 ACRE). THEREFORE, SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN ONE OR MORE ACRES OF EARTH DISTURBANCE OR SHOULD THE PROJECT BECOME PART OF A LARGER PLAN OF DEVELOPMENT, THEN THE SELECTED CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL PERMITTING WITH VT-ANR VIA FILING OF THE APPROPRIATE NOTICE OF INTENT UNDER THE CONSTRUCTION GENERAL PERMIT PROCESS".

## 1.4 EROSION PREVENTION AND SEDIMENT CONTROL (EPSC)

### 1.4.1 MARK SITE BOUNDARIES

PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE PROJECT DEMARCATION FENCING (PDF) SHALL BE PLACED ALONG THE PERIMETER OF THE PROJECT AS SHOWN ON THE EROSION CONTROL SITE PLAN (SHEET 10 OF 28). THE INSTALLATION OF THE PDF WILL BE PERFORMED SUCH THAT NO VEGETATION ON THE OUTSIDE OF THE FENCING IS DISTURBED.

### 1.4.2 LIMIT DISTURBANCE AREA

PRESERVE EXISTING VEGETATION, SHRUBS, AND TREES WHENEVER POSSIBLE.

### 1.4.3 STABILIZE CONSTRUCTION EXIT

### 1.4.4 INSTALL SILT FENCE

### 1.4.5 DIVERT UPLAND RUNOFF

### 1.4.6 SLOW DOWN CHANNELIZED RUNOFF

INLET PROTECTION SHALL BE PLACED AT LOCATIONS ILLUSTRATED ON THE EROSION CONTROL SITE PLAN (SHEET 10 OF 28) AND AS DESCRIBED ON EROSION CONTROL DETAIL SHEET (SHEET 11 OF 28).

CHECK DAMS SHALL BE INSTALLED AS SHOWN ON THE EROSION CONTROL SITE PLAN (SHEET 10 OF 28).

A CHECK DAM IS A SMALL DAM MADE OF CONCRETE, MASONRY, ROCK, METAL, WOOD, STAKED HAY BALES, SANDBAGS, OR OTHER EROSION-RESISTANT MATERIALS PLACED IN SMALL EROSION CONTROL WATERWAYS OR AROUND STORM DRAIN INLETS. THE PURPOSE OF A CHECK DAM IS TO REDUCE OR PREVENT EROSION AND SEDIMENTATION BY REDUCING VELOCITIES, BY PROMOTING DEPOSITION OF SEDIMENT, AND BY STABILIZING CHANNEL GRADES. CHECK DAMS CAN BE DAMAGED BY HEAVY RUNOFF OR HIGH WATER VELOCITIES, SO BE SURE TO INSPECT THEM OFTEN AND REPAIR OR REPLACE THEM WHEN NECESSARY.

### 1.4.7 CONSTRUCT PERMANENT CONTROLS

DRAINAGE INLETS AND UNDERGROUND PIPES WILL BE INSTALLED TO CONVEY THE SURFACE WATER RUNOFF FROM THE ROADWAY SURFACE AND SURROUNDING LIMITED PERMEABILITY GROUND SURFACE TOWARDS THE CONNECTICUT RIVER. THESE STRUCTURES HELP PREVENT UNDERMINED ROADWAY SURFACES AND LIMIT EROSION FROM UNCHANNELED FLOW

### 1.4.8 STABILIZE EXPOSED SOILS

SEEDING, MULCHING AND BIODEGRADABLE EROSION CONTROL MATTING, OR AN EQUIVALENT PRODUCT, WILL BE UTILIZED ON ALL SLOPES STEEPER THAN 3:1 THAT ARE NOT LINED WITH STONE FILL. THE PURPOSE OF EROSION MATTING IS TO HELP BIND SOIL PARTICLES TOGETHER SO THAT THEY CAN BETTER RESIST THE SHEAR STRESSES BUILT UP BY WATER FLOWING DOWN THE SLOPE. THESE SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE OR DURING INTERMITTENT PHASES OF CONSTRUCTION ACTIVITY.

HAY MULCH SHOULD BE APPLIED TO EXPOSED SOIL AT THE END OF EACH WORK DAY. THIS WILL REQUIRE CAREFUL PLANNING OF THE PHASING OF EARTH MOVING. SEED AND HAY MULCH SHOULD BE APPLIED AS SOON AS NO MORE SOIL DISTURBANCE IS EXPECTED TO OCCUR, OF IF THE AREA IS TO BE WITHOUT CONSTRUCTION ACTIVITY FOR A PERIOD OF 14 DAYS. SEED AND HAY MULCH SHOULD BE APPLIED TO TOPSOIL STOCKPILES AS WELL AS TO AREAS OF DISTURBED SOIL. ALL EXPOSED AREAS SHALL BE APPROPRIATELY STABILIZED PRIOR TO A SIGNIFICANT RAIN EVENT.

TRACKING AND MULCHING WILL BE USED TO TEMPORARILY STABILIZE SLOPES. USE TRACKING FOR SHORT TERM (TWO WEEKS) EXPOSED SLOPES. DRIVE EQUIPMENT ON THE SLOPES TO LEAVE TRACK (SMALL CHECK DAMS) THAT WILL CATCH WATER FLOW. STABILIZE SLOPES WITHIN 48 HOURS OR SOONER CONSIDERING WEATHER CONDITIONS.

### 1.4.9 WINTER STABILIZATION

IF THIS PROJECT EXTENDS PAST OCT. 15, THE EPSC PLAN SHALL BE RE-EVALUATED FOR THE PROPER PROCEDURES FOR WINTER CONSTRUCTION.

### 1.4.10 STABILIZE SOIL AT FINAL GRADE

SEEDING AND MULCHING WILL BE USED TO STABILIZE SLOPES. USE SEEDING FOR LONG TERM EXPOSED SLOPES. IT IS ANTICIPATED THAT GRASS TAKES TWO WEEKS TO ESTABLISH ITSELF. STABILIZE SLOPES WITHIN 48 HOURS OR SOONER CONSIDERING WEATHER CONDITIONS.

SEEDING AND MULCHING IS ONE OF THE MOST EFFECTIVE MEANS OF CONTROLLING EROSION. THEREFORE, ALL EXPOSED SURFACES OUTSIDE OF THE ROADWAY LIMITS, WHICH ARE NOT SPECIFIED TO BE COVERED BY STONES OR SOME OTHER SUITABLE COVER, WILL BE SEEDED AND MULCHED.

SEE EROSION CONTROL SITE PLAN (SHEET 10 OF 28) FOR LOCATIONS OF AREAS TO BE RE-VEGETATED.

### 1.4.11 DEWATERING ACTIVITIES

ACCUMULATED SEDIMENT IS REMOVED TO ALLOW SUFFICIENT TREATMENT

### 1.4.12 SITE INSPECTION

THE TEMPORARY EPSC MEASURES SHALL BE INSPECTED A MINIMUM OF ONCE A WEEK AND/OR AFTER EACH RAINFALL EVENT.

## FINAL EROSION CONTROLS

REMOVE PERIMETER CONTROLS (PDF) ONLY AFTER ALL CONSTRUCTION ACTIVITIES ARE COMPLETED AND ALL SLOPES ARE STABILIZED AND WELL ESTABLISHED.

REMOVAL OF CHECK DAMS CAN OCCUR AFTER VEGETATED DITCHES HAVE ESTABLISHED GROWTH OR STONE LINED DITCHES ARE COMPLETED.

## GENERAL EROSION & SEDIMENT CONTROL GUIDELINES

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE WORK OUTLINED IN THIS NARRATIVE CONSISTS OF APPLYING MEASURES THROUGHOUT THE LIFE OF THE PROJECT TO CONTROL EROSION AND MINIMIZE THE SEDIMENTATION OF RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION CONTROLS.

COORDINATE THE INSTALLATION, USE, AND REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES WITH CONSTRUCTION ACTIVITIES TO ENSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS EROSION AND SEDIMENT CONTROL. EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES AS CONSTRUCTION PROCEEDS. THE CONTRACTOR WILL USE ADDITIONAL EROSION CONTROL MEASURES AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION AND AS DIRECTED BY THE ENGINEER. SEE SUB-SECTION 105.23 OF THE VERMONT AOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2006.

THE CONTRACTOR WILL USE OTHER TEMPORARY OR PERMANENT EROSION CONTROL DEVICES AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION AND AS DIRECTED BY THE RESIDENT ENGINEER. SEE SECTION 105 OF THE 2006 VERMONT STANDARD SPECIFICATIONS FOR CONSTRUCTION.

THE CONTRACTOR SHALL INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SEQUENCED IN THE "SPECIFIC GUIDELINES", OR AS DIRECTED BY THE RESIDENT ENGINEER. THE TYPE, SIZE, AND LOCATION OF ANY EROSION CONTROL DEVICES SHALL NOT BE CHANGED UNLESS PRIOR APPROVAL IS OBTAINED FROM THE RESIDENT ENGINEER. ANY APPROVED CHANGES SHALL BE NOTED ON THE EROSION CONTROL PLANS AND DISCUSSED ON THE WEEKLY REPORT. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES DAILY AND AFTER EACH RAINFALL EVENT. THE CONTRACTOR SHALL REPAIR ALL DAMAGED EROSION CONTROL MEASURES IMMEDIATELY. ALL EROSION CONTROL MEASURES THAT TRAP SEDIMENT, SUCH AS SEDIMENT BASINS AND SILT FENCES, SHALL BE CLEANED OUT WHEN THEIR CAPACITY REACHES 50%.

ALL SEDIMENTS REMOVED FROM EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DEPOSITED IN AN UPLAND PORTION OF THE PROJECT SITE OR DEPOSITED OFF SITE IN THE DESIGNATED PROJECT WASTESITE.

INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN IN THE EROSION CONTROL PLAN OR AS DIRECTED BY THE ENGINEER. DO NOT MODIFY THE TYPE, SIZE OR LOCATION OF ANY CONTROL OR PRACTICE WITHOUT APPROVAL OF THE ENGINEER. ANY CHANGES SHALL BE NOTED ON THE PLANS, IN THE WEEKLY INSPECTION REPORT, AND REPORTED TO THE APPROPRIATE AUTHORITY IN A TIMELY MANNER. INSPECT ALL CONTROL MEASURES WEEKLY AND AFTER EACH RAINFALL EVENT. REPAIR OR REPLACE ANY DAMAGED MEASURES.

PREVENTING INITIAL SOIL EROSION IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. THEREFORE, STABILIZE ALL DISTURBED AREAS PROMPTLY AFTER CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY VEGETATION SHALL BE ESTABLISHED IF THE AREA IS TO BE WITHOUT CONSTRUCTION ACTIVITY FOR A PERIOD OF 14 DAYS. PERIMETER CONTROL MEASURES SHALL BE INSTALLED FOLLOWING CLEARING, BUT PRIOR TO THE START OF ANY GRUBBING OR GRADING ACTIVITY. INSTALL OTHER TEMPORARY CONTROLS IN INCREMENTAL STAGES AS CONSTRUCTION PROCEEDS.

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE.

CONTROL ONLY SEDIMENT-LADEN RUNOFF GENERATED BY THE PROJECT SITE. COLLECT AND ROUTE CLEAN OFFSITE RUNOFF AROUND OR THROUGH THE PROJECT SITE USING DIVERSION BERMS, DIVERSION CHANNELS, CULVERTS AND/OR TEMPORARY PIPES.

DO NOT ALLOW CONSTRUCTION EQUIPMENT TO OPERATE ON THE DOWN SLOPE SIDE OF PERIMETER CONTROL MEASURES.

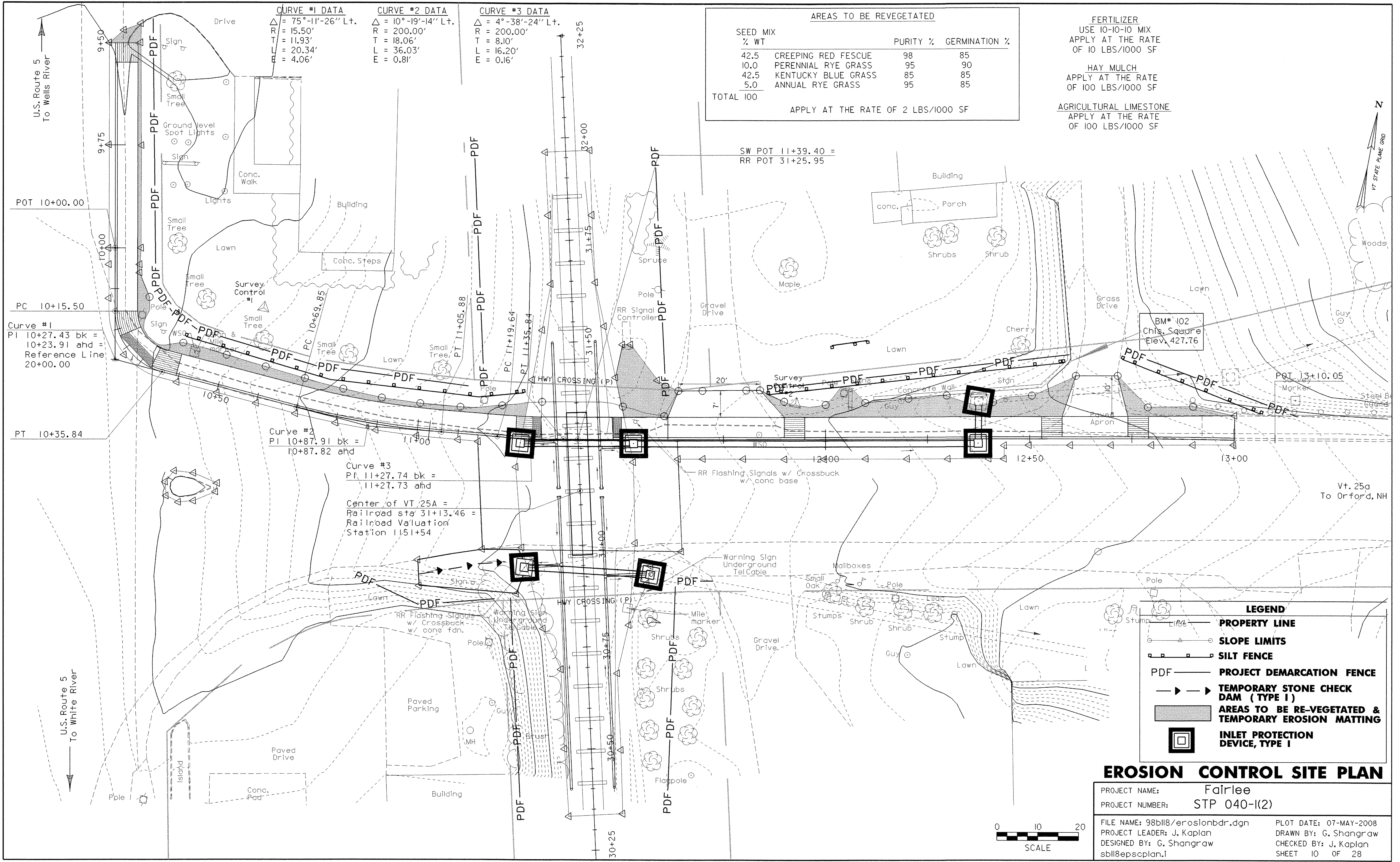
ANY MATERIAL STOCKPILES, INCLUDING BUT NOT LIMITED TO, GRUBBING MATERIAL, SAND BORROW, EARTH BORROW, GRANULAR BORROW, TOPSOIL, AND ANY EXCAVATED WASTE PILES SHALL BE MULCHED AND SHALL ALSO HAVE A DOUBLE INSTALLATION OF SILT FENCE AROUND THE BASE OF EACH STOCKPILE. REMOVAL OF THE SILT FENCES AROUND THE WASTE AREAS SHALL BE PERFORMED ONLY AFTER THE APPROVAL OF THE ON-SITE COORDINATOR.

COFFERDAMS, SETTLING BASINS, FILTER BAGS, OR OTHER SEDIMENT STRUCTURES ARE NOT EXPECTED TO BE REQUIRED FOR THIS PROJECT.

THE PLAN PREPARER WILL BE AVAILABLE FOR ON-SITE CONSULTATIONS WITH THE RESIDENT ENGINEER WITHIN TWENTY-FOUR HOURS OF THE REQUEST.

## EROSION CONTROL NARRATIVE

PROJECT NAME:	Fairlee
PROJECT NUMBER:	STP 040-I(2)
FILE NAME: 98b118\sb118epsnar.dgn	PLOT DATE: 07-MAY-2008
PROJECT LEADER: J. Kaplan	DRAWN BY: G. Shangraw
DESIGNED BY: G. Shangraw	CHECKED BY: J. Kaplan
sb118epsn.nar.i	SHEET 9 OF 28



**CURVE #1 DATA**  
 $\Delta = 75^\circ-11'-26''$  L+  
 R = 15.50'  
 T = 11.93'  
 L = 20.34'  
 E = 4.06'

**CURVE #2 DATA**  
 $\Delta = 10^\circ-19'-14''$  L+  
 R = 200.00'  
 T = 18.06'  
 L = 36.03'  
 E = 0.81'

**CURVE #3 DATA**  
 $\Delta = 4^\circ-38'-24''$  L+  
 R = 200.00'  
 T = 8.10'  
 L = 16.20'  
 E = 0.16'

AREAS TO BE REVEGETATED			
SEED MIX	% WT	PURITY %	GERMINATION %
42.5	CREeping RED FESCUE	98	85
10.0	PERENNIAL RYE GRASS	95	90
42.5	KENTUCKY BLUE GRASS	85	85
5.0	ANNUAL RYE GRASS	95	85
TOTAL 100			

APPLY AT THE RATE OF 2 LBS/1000 SF

**FERTILIZER**  
 USE 10-10-10 MIX  
 APPLY AT THE RATE  
 OF 10 LBS/1000 SF

**HAY MULCH**  
 APPLY AT THE RATE  
 OF 100 LBS/1000 SF

**AGRICULTURAL LIMESTONE**  
 APPLY AT THE RATE  
 OF 100 LBS/1000 SF

Curve #1  
 PI 10+27.43 bk =  
 10+23.91 ahd =  
 Reference Line  
 20+00.00

Curve #2  
 PI 10+87.91 bk =  
 10+87.82 ahd

Curve #3  
 PI 11+27.74 bk =  
 11+27.73 ahd

Center of VT 25A =  
 Railroad sta 31+13.46 =  
 Railroad Valuation  
 Station 1151+54

**LEGEND**

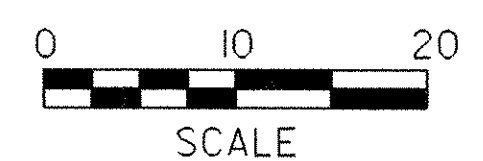
	PROPERTY LINE
	SLOPE LIMITS
	SILTS FENCE
	PROJECT DEMARCATION FENCE
	TEMPORARY STONE CHECK DAM (TYPE I)
	AREAS TO BE RE-VEGETATED & TEMPORARY EROSION MATTING
	INLET PROTECTION DEVICE, TYPE I

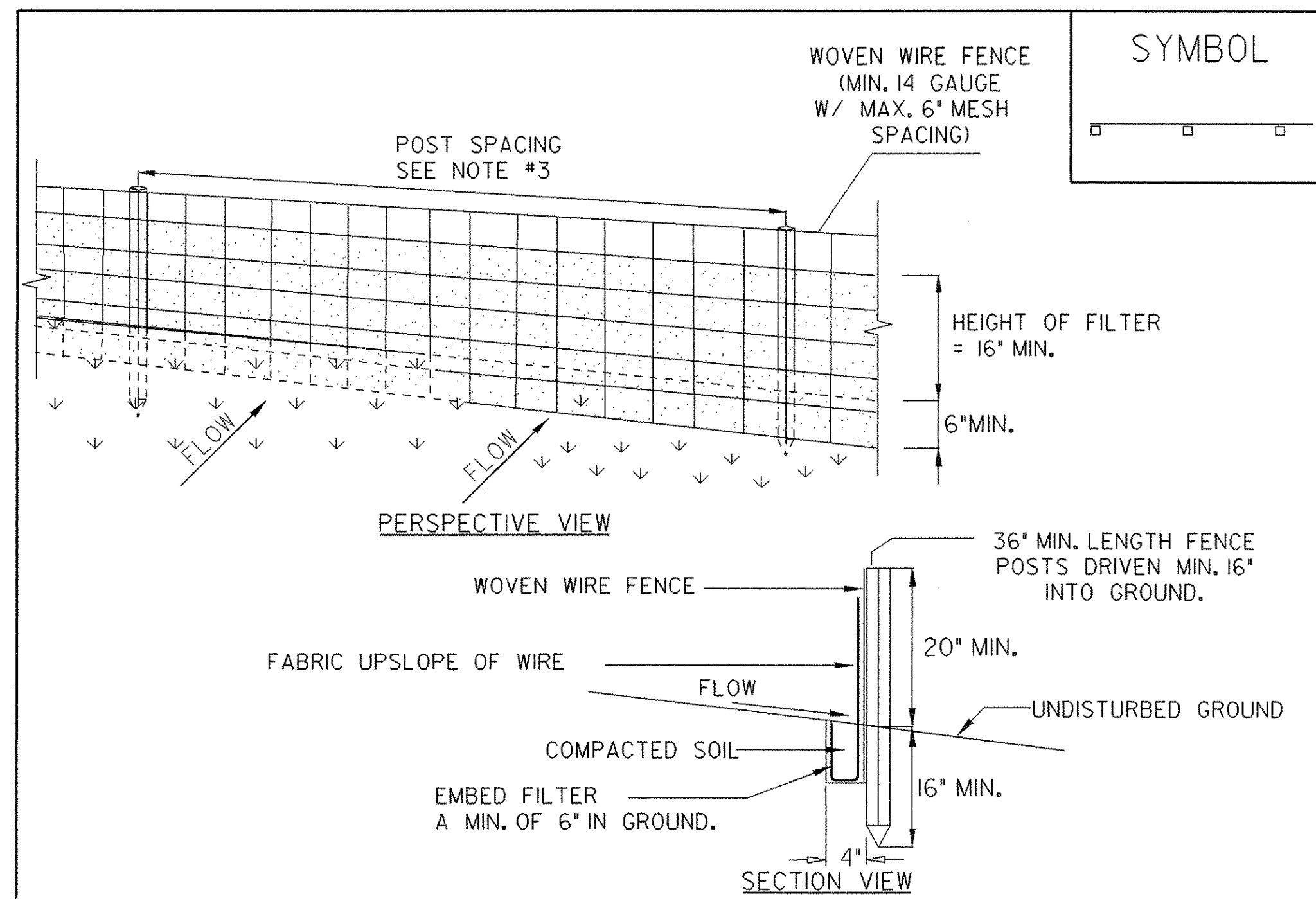
**EROSION CONTROL SITE PLAN**

PROJECT NAME: Fairlee  
 PROJECT NUMBER: STP 040-1(2)

FILE NAME: 98b118/erosionbdr.dgn  
 PROJECT LEADER: J. Kaplan  
 DESIGNED BY: G. Shangraw  
 sb118epsplan.i

PLOT DATE: 07-MAY-2008  
 DRAWN BY: G. Shangraw  
 CHECKED BY: J. Kaplan  
 SHEET 10 OF 28





**CONSTRUCTION SPECIFICATIONS**

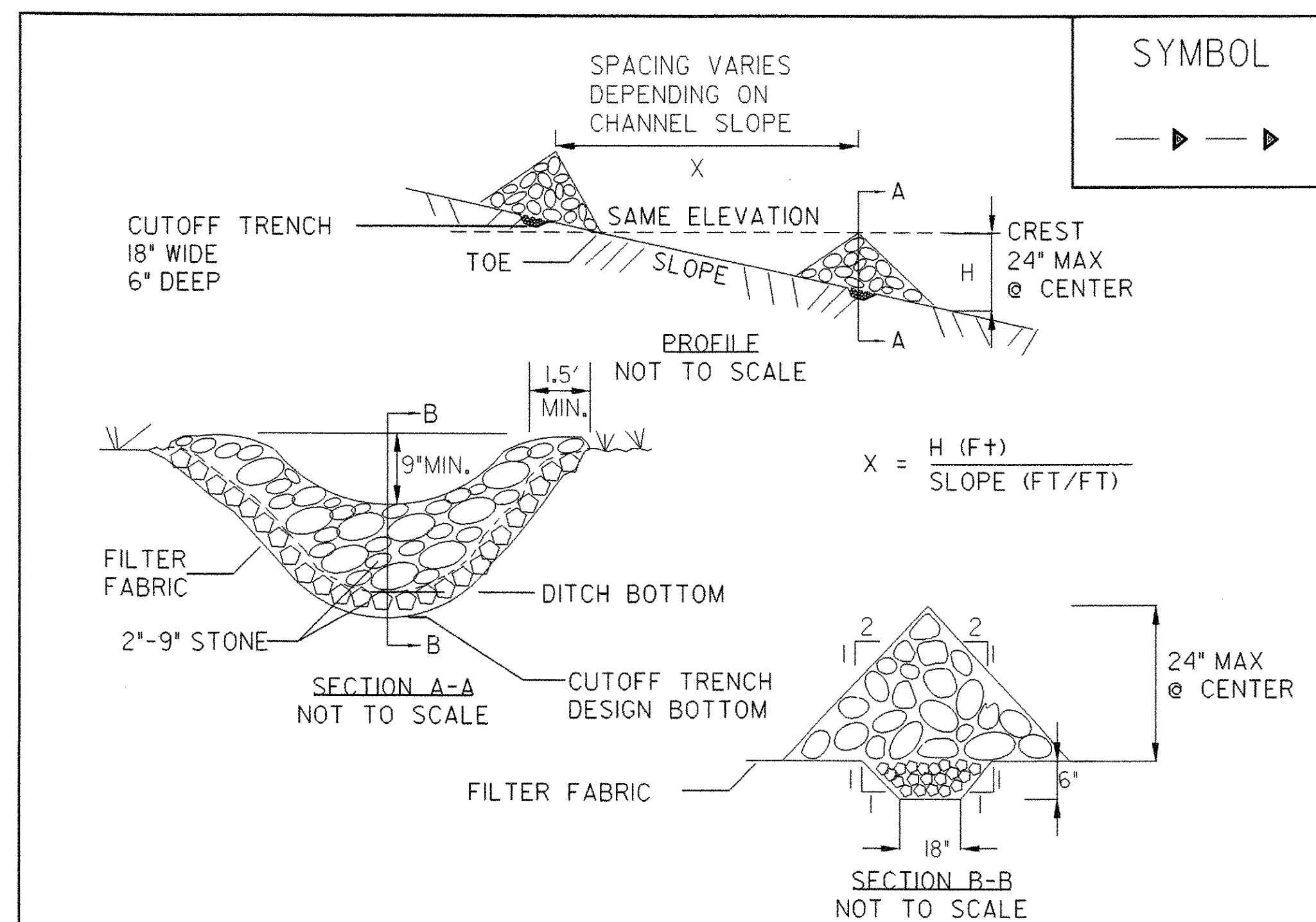
1. WOVEN WIRE FENCE REINFORCEMENT IS ONLY REQUIRED WITHIN 100 FT UPSLOPE OF RECEIVING WATERS.
2. WHERE REQUIRED FENCE SHALL BE WOVEN WIRE, MIN. 14 GAUGE WITH A 6\"/>

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**SILT FENCE**

NOTES:  
REFER TO \*THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- \*FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM  
STANDARD SPECIFICATION 649.51(GEOTEXTILE FOR SILT FENCE OR  
SPECIAL PROVISION 900.675 (GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED)



**CONSTRUCTION SPECIFICATIONS**

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION.
2. SET SPACING OF CHECK DAMS SO THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.

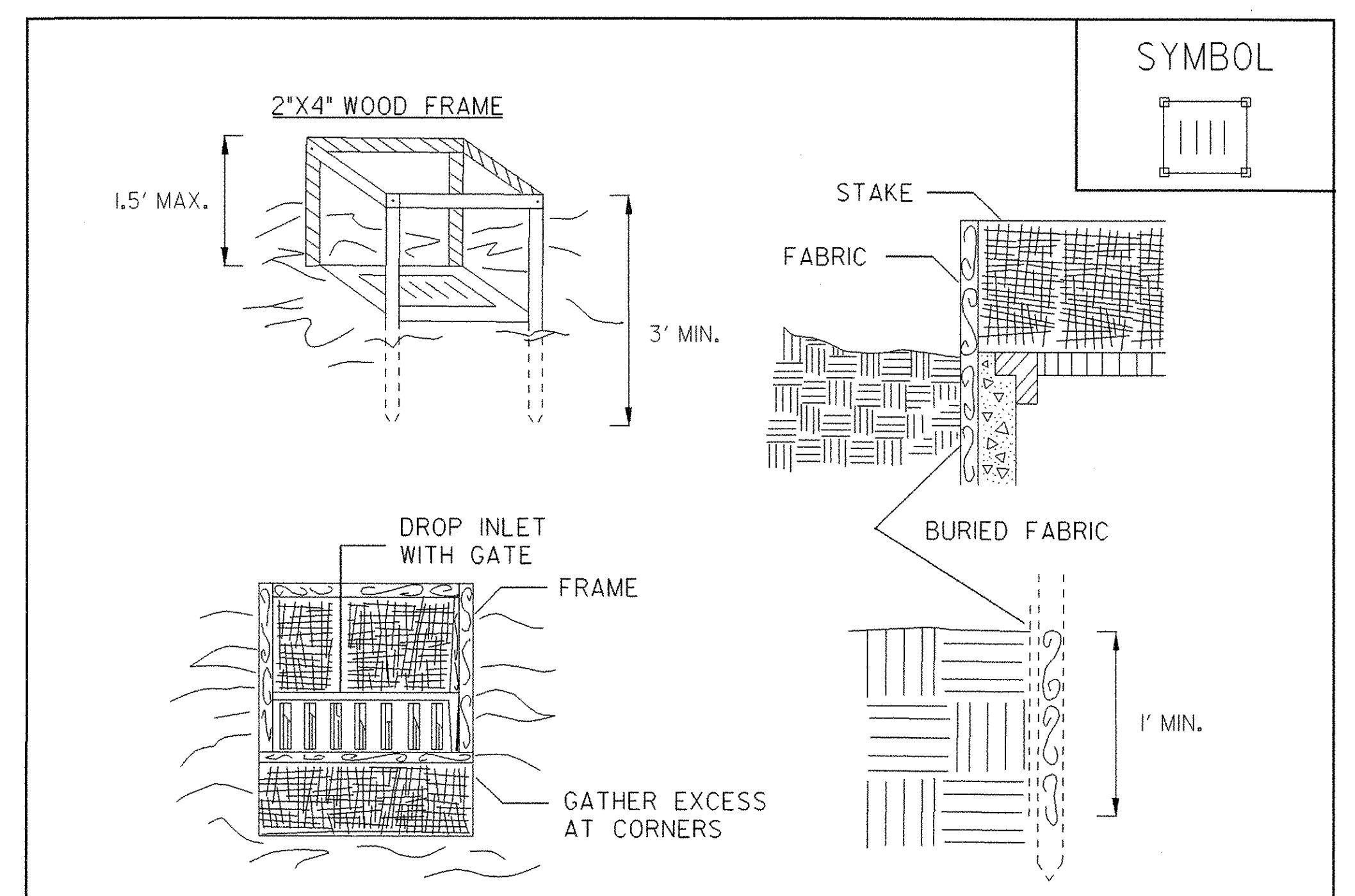
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DECORIGINALLY  
DEVELOPED BY USDA-NRCSVERMONT DEPARTMENT OF ENVIRONMENTAL  
CONSERVATION

**CHECK DAM**

NOTES:  
REFER TO \*THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- \*FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM  
653.25 TEMPORARY STONE CHECK DAM, TYPE I

REVISIONS	
MARCH 8, 2007	JMF



**CONSTRUCTION SPECIFICATIONS**

1. FILTER FABRIC SHALL HAVE AN EOS OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2\"/>

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**FILTER FABRIC  
DROP INLET  
PROTECTION**

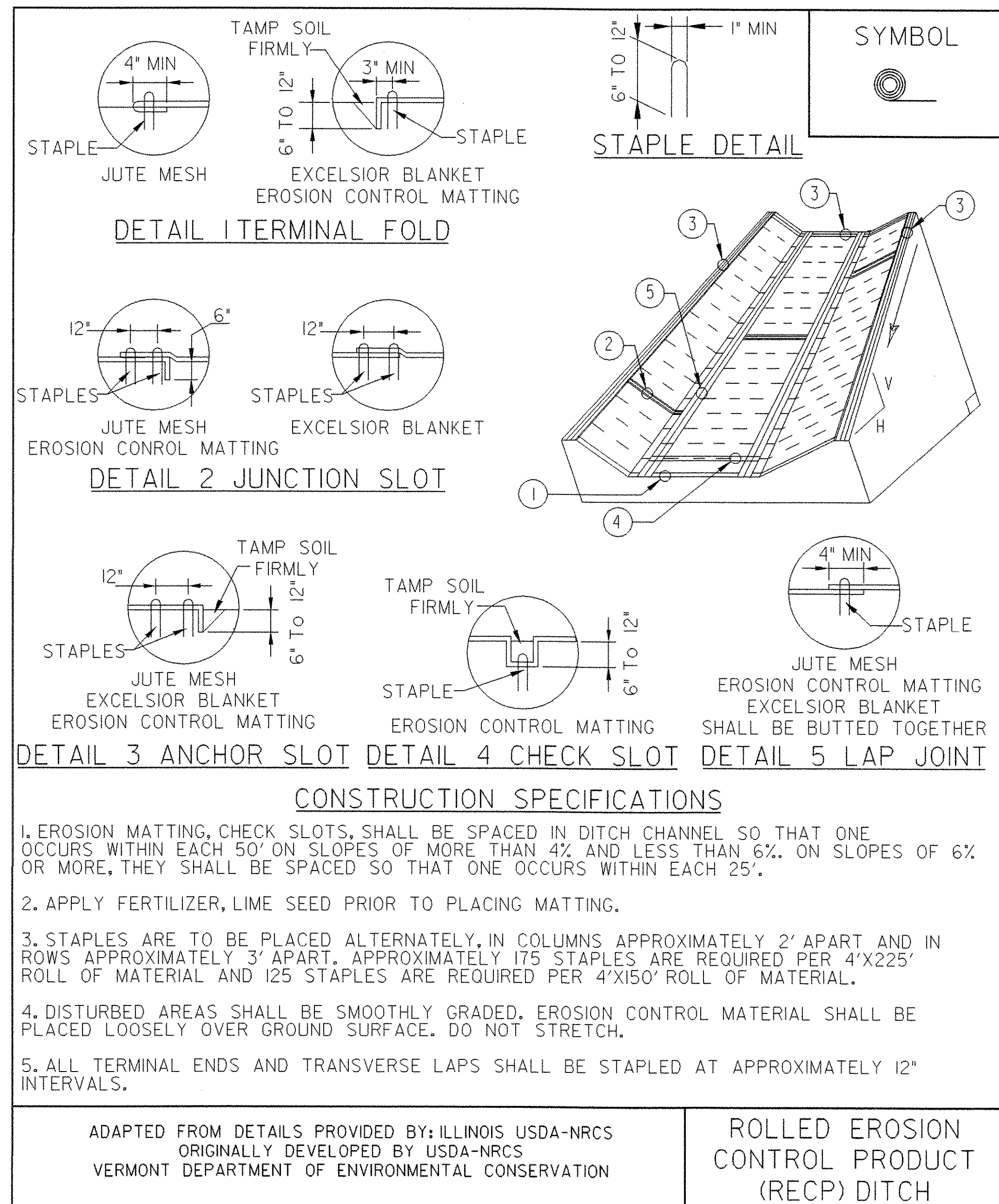
NOTES:  
REFER TO \*THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- \*FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM  
653.40 INLET PROTECTION DEVICE, TYPE I

REVISIONS	
MARCH 8, 2007	JMF

**EROSION CONTROL DETAILS**

PROJECT NAME:	Fairlee
PROJECT NUMBER:	STP 040-1(2)
FILE NAME:	98b118/erosionbdr.dgn
PROJECT LEADER:	J. Kaplan
DESIGNED BY:	G. Shangraw
sb118epsdet.i	
PLOT DATE:	07-MAY-2008
DRAWN BY:	G. Shangraw
CHECKED BY:	J. Kaplan
SHEET	11 OF 28



- CONSTRUCTION SPECIFICATIONS**
1. EROSION MATTING, CHECK SLOTS, SHALL BE SPACED IN DITCH CHANNEL SO THAT ONE OCCURS WITHIN EACH 50' ON SLOPES OF MORE THAN 4% AND LESS THAN 6%. ON SLOPES OF 6% OR MORE, THEY SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 25'.
  2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
  3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
  4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
  5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

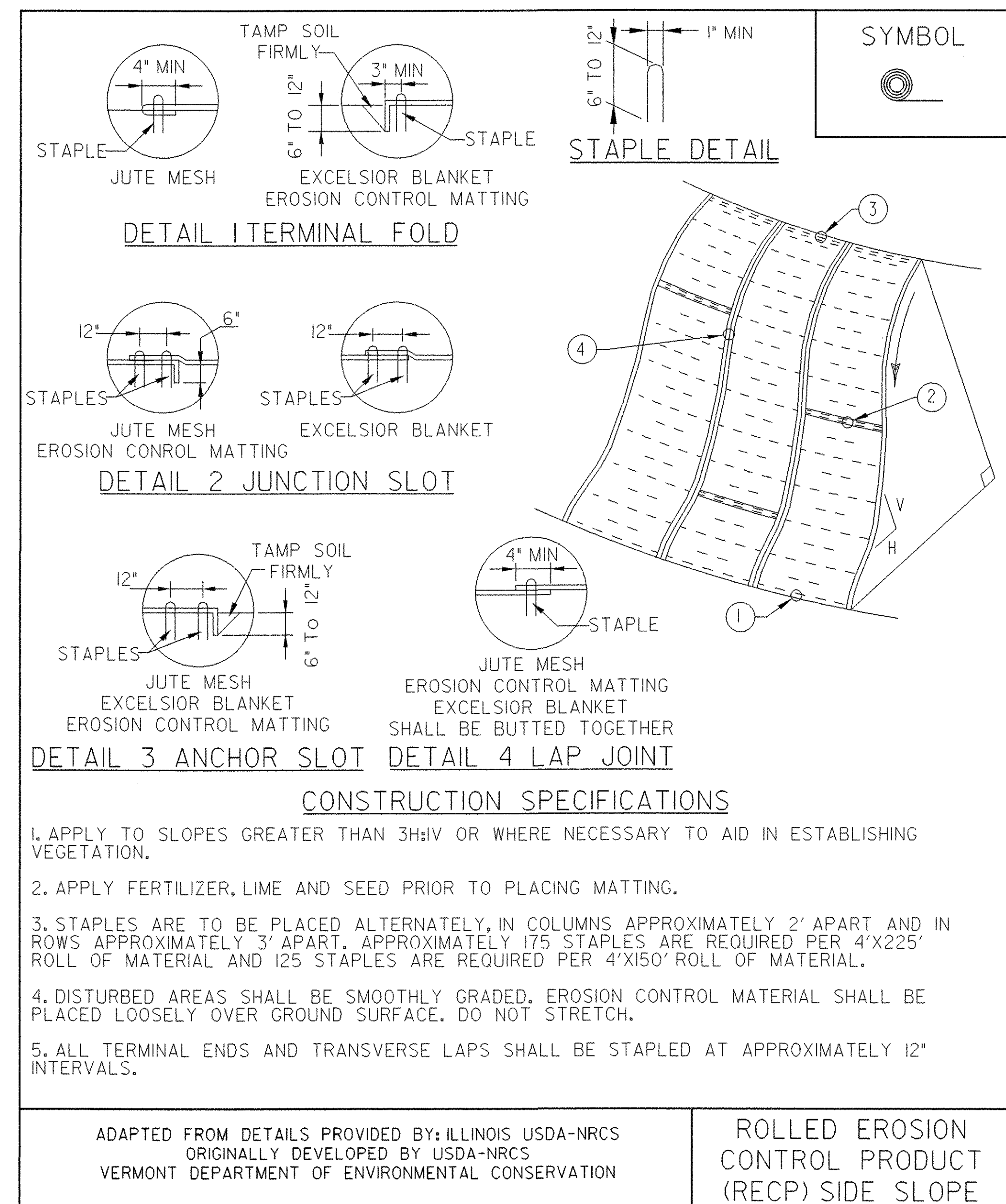
ADAPTED FROM DETAILS PROVIDED BY: ILLINOIS USDA-NRCS  
 ORIGINALLY DEVELOPED BY USDA-NRCS  
 VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**ROLLED EROSION CONTROL PRODUCT (RECP) DITCH**

NOTES:  
 REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM  
 653.20 TEMPORARY EROSION MATTING OR  
 653.21 PERMANENT EROSION MATTING

REVISIONS		
MARCH 8, 2007	JMF	
APRIL 16, 2007	WHF	



- CONSTRUCTION SPECIFICATIONS**
1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
  2. APPLY FERTILIZER, LIME AND SEED PRIOR TO PLACING MATTING.
  3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
  4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
  5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

ADAPTED FROM DETAILS PROVIDED BY: ILLINOIS USDA-NRCS  
 ORIGINALLY DEVELOPED BY USDA-NRCS  
 VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE**

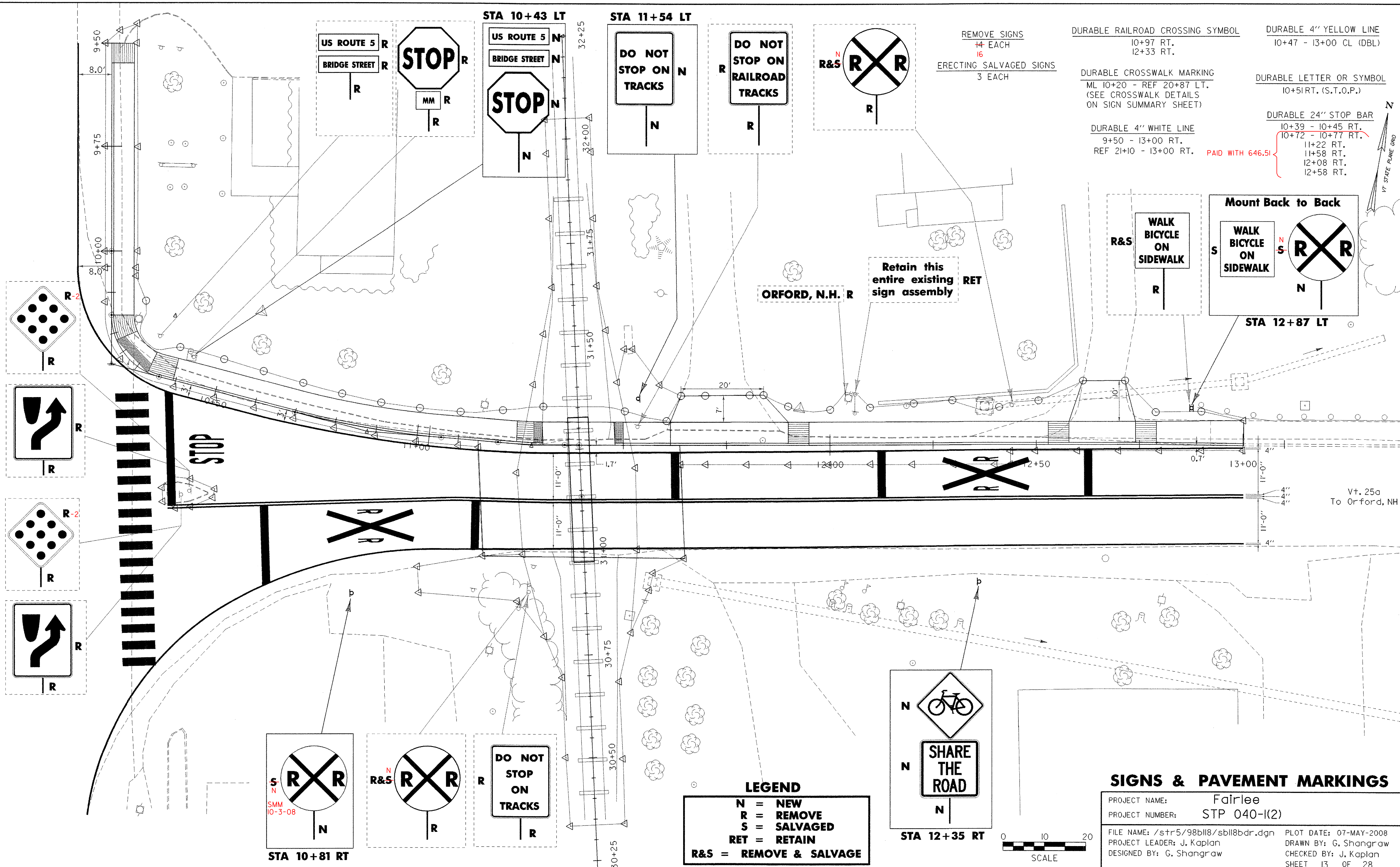
NOTES:  
 REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- " FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS ITEM SHALL BE PAID FOR UNDER ITEM  
 653.20 TEMPORARY EROSION MATTING OR  
 653.21 PERMANENT EROSION MATTING

REVISIONS		
NEW		
APRIL 16, 2007	WHF	

**EROSION CONTROL DETAILS**

PROJECT NAME:	Fairlee
PROJECT NUMBER:	STP 040-1(2)
FILE NAME: 98b118/erosionbdr.dgn	PLOT DATE: 07-MAY-2008
PROJECT LEADER: J. Kaplan	DRAWN BY: G. Shangraw
DESIGNED BY: G. Shangraw	CHECKED BY: J. Kaplan
sb118epsdct2.i	SHEET 12 OF 28



REMOVE SIGNS  
 14 EACH  
 16  
 ERECTING SALVAGED SIGNS  
 3 EACH

DURABLE RAILROAD CROSSING SYMBOL  
 10+97 RT.  
 12+33 RT.

DURABLE 4" YELLOW LINE  
 10+47 - 13+00 CL (DBL)

DURABLE CROSSWALK MARKING  
 ML 10+20 - REF 20+87 LT.  
 (SEE CROSSWALK DETAILS  
 ON SIGN SUMMARY SHEET)

DURABLE LETTER OR SYMBOL  
 10+51 RT. (S.T.O.P.)

DURABLE 4" WHITE LINE  
 9+50 - 13+00 RT.  
 REF 21+10 - 13+00 RT.

PAID WITH 646.51

DURABLE 24" STOP BAR  
 10+39 - 10+45 RT.  
 10+72 - 10+77 RT.  
 11+22 RT.  
 11+58 RT.  
 12+08 RT.  
 12+58 RT.

VT STATE PLANE GRID

ORFORD, N.H. R  
 Retain this entire existing sign assembly RET

Mount Back to Back  
 WALK BICYCLE ON SIDEWALK  
 STA 12+87 LT

Vt. 25a  
 To Orford, NH

STA 10+81 RT  
 SMM 10-3-08

**LEGEND**  
 N = NEW  
 R = REMOVE  
 S = SALVAGED  
 RET = RETAIN  
 R&S = REMOVE & SALVAGE

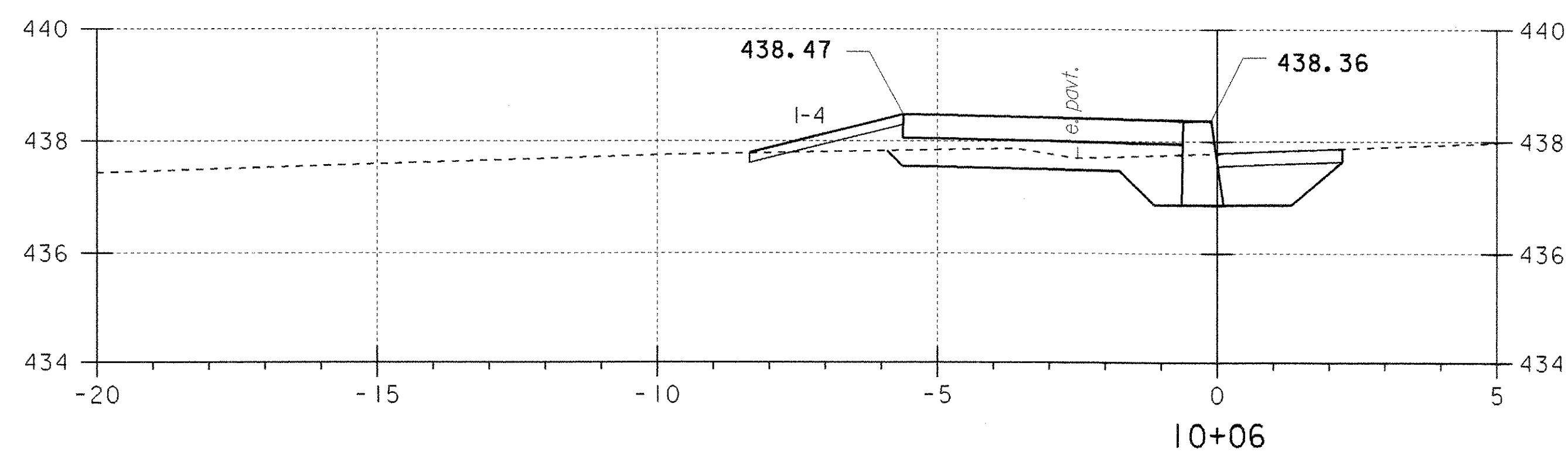
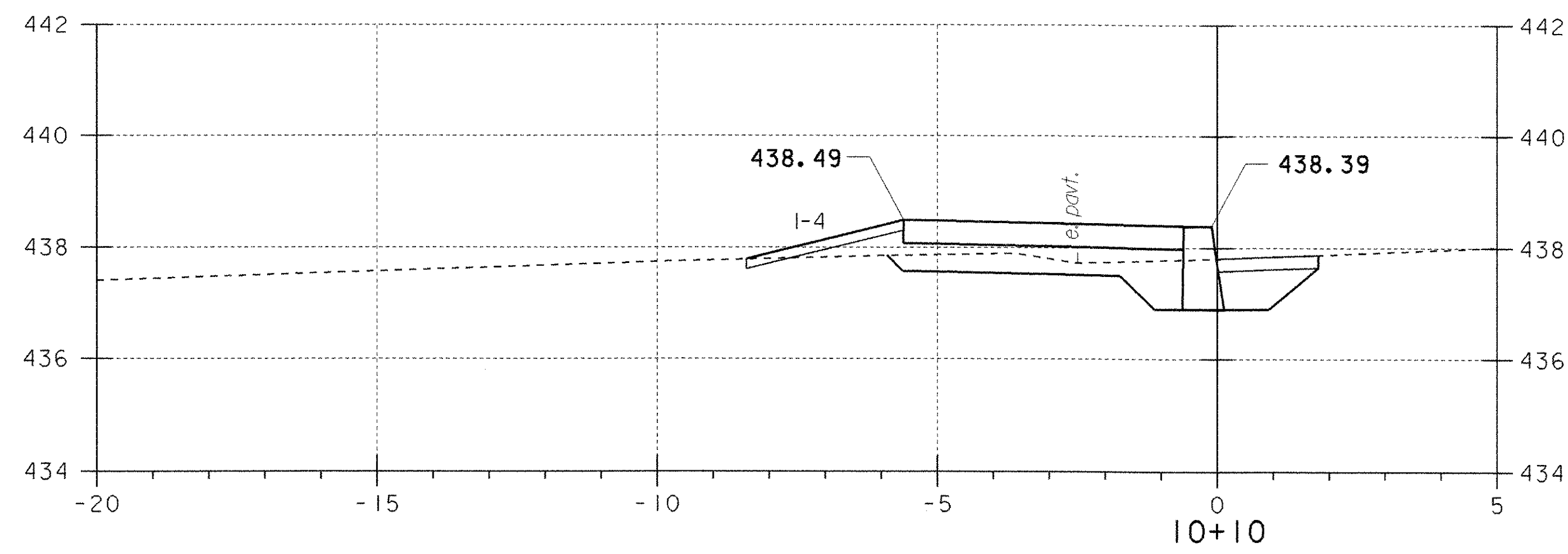
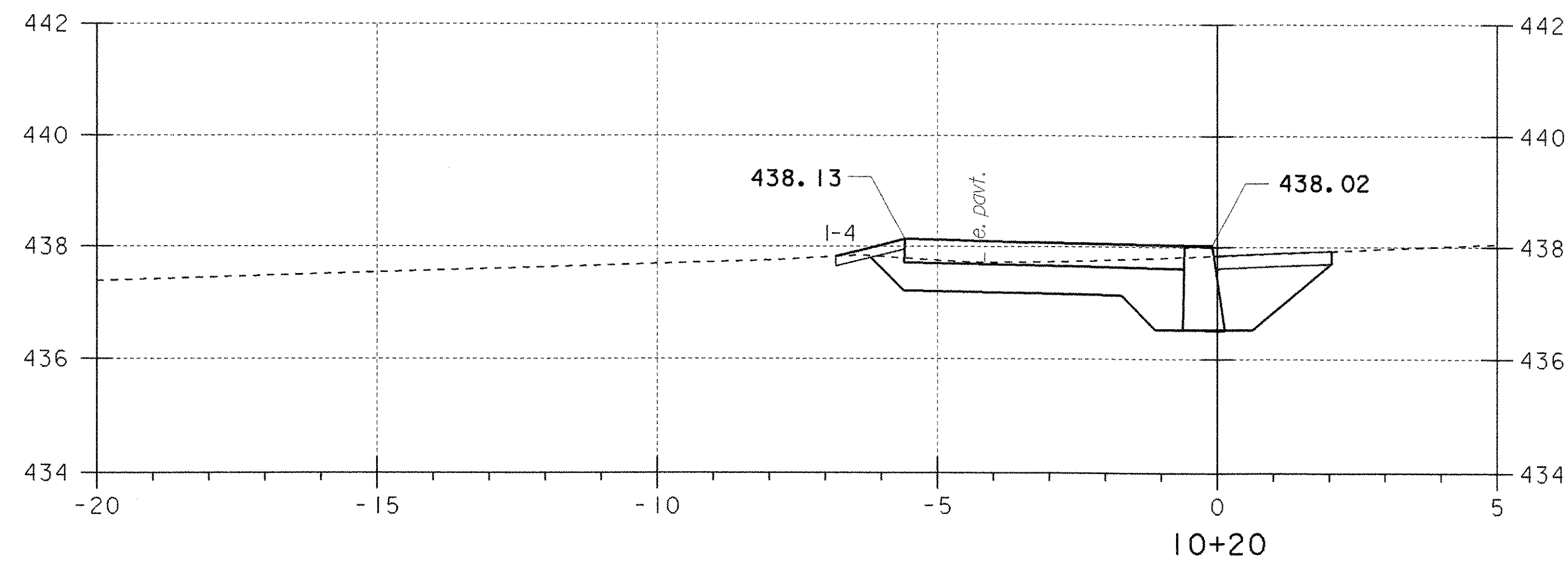
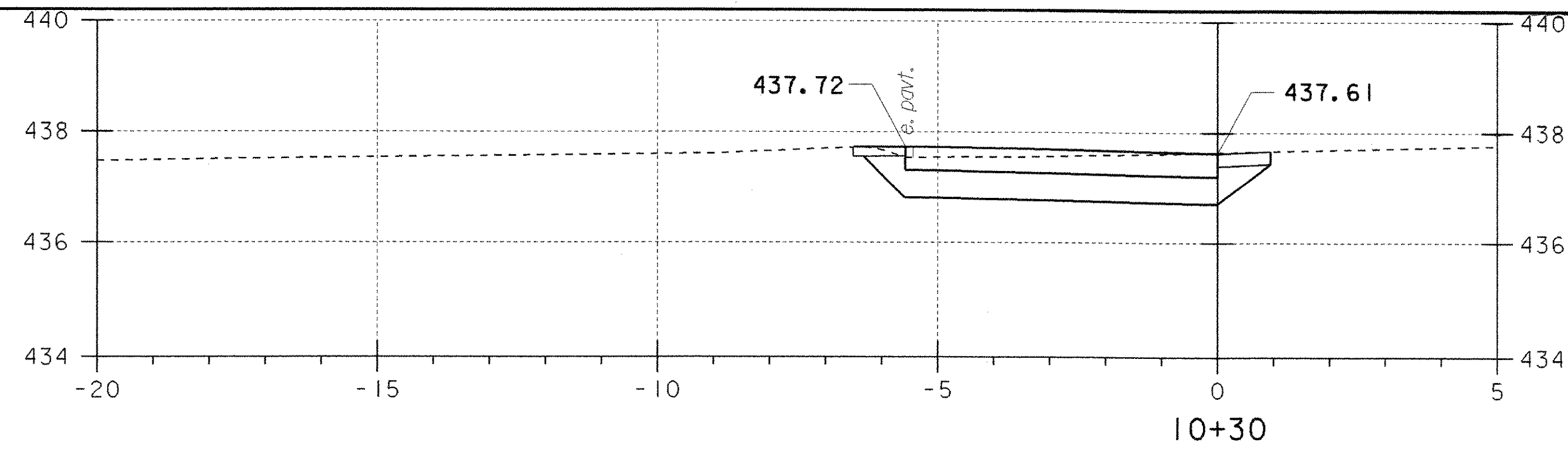
SHARE THE ROAD  
 STA 12+35 RT

SCALE  
 0 10 20

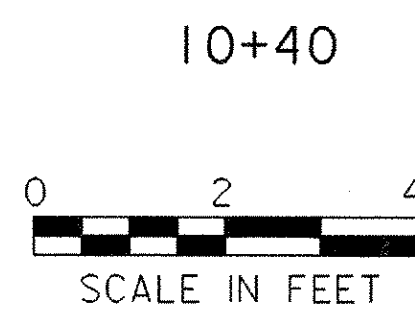
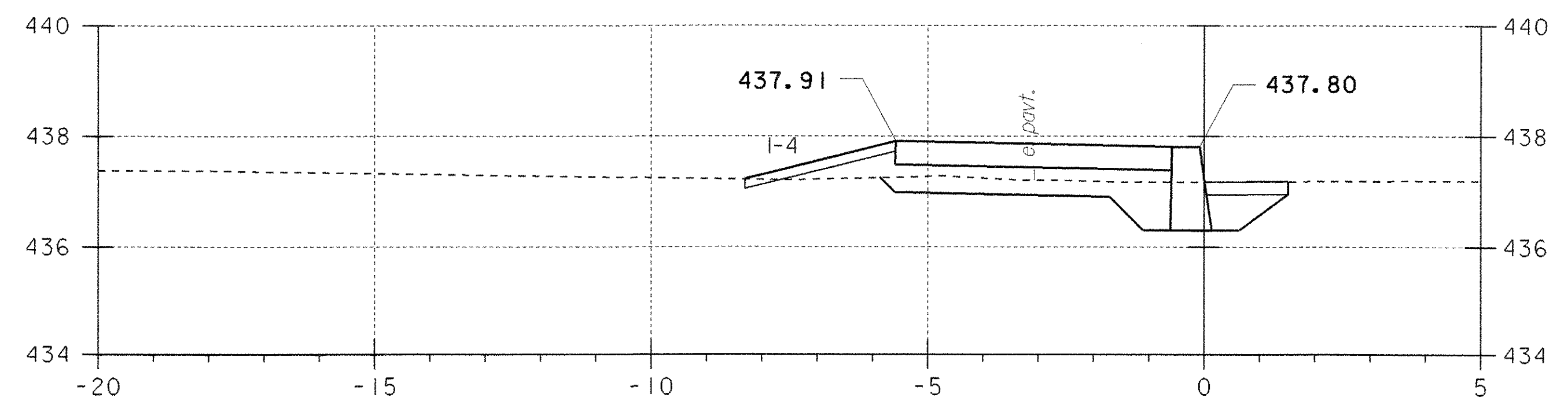
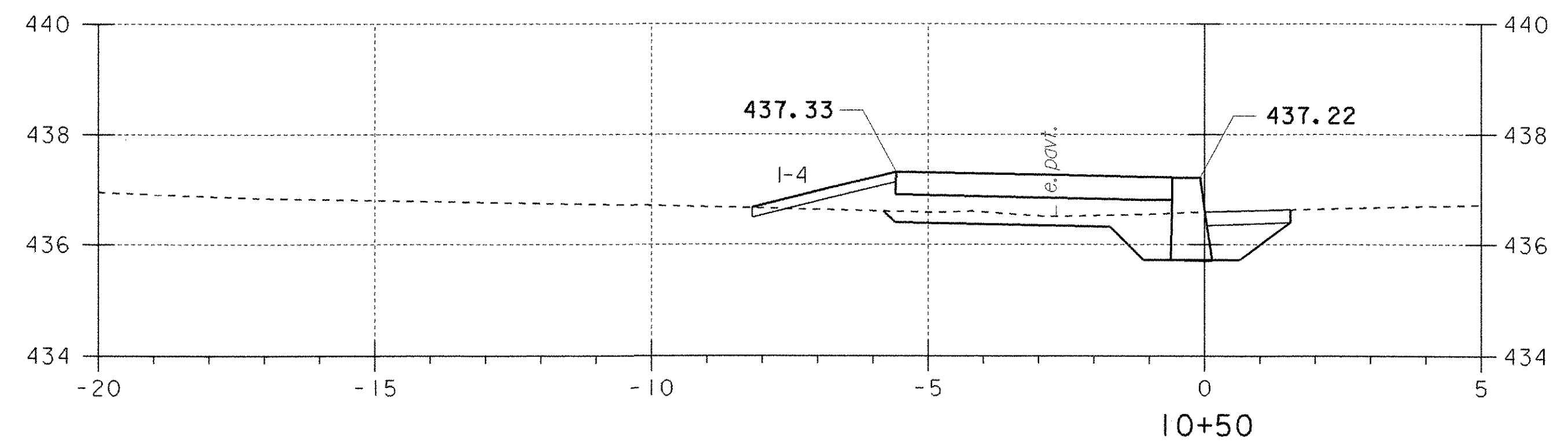
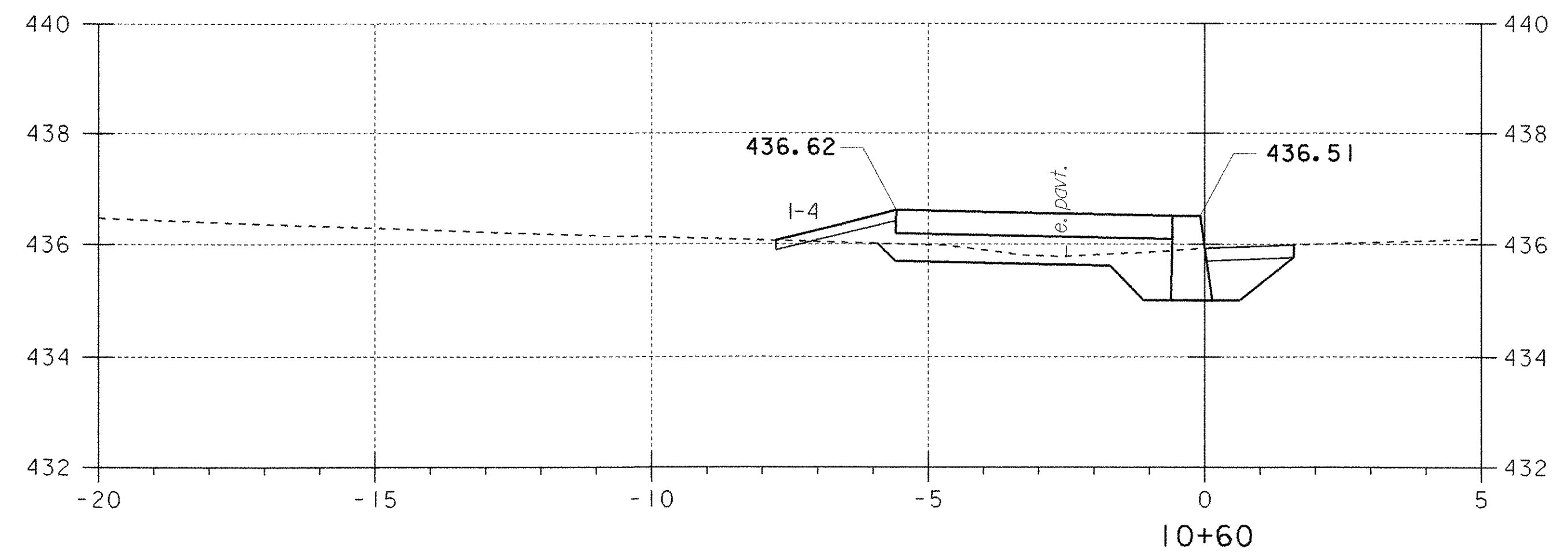
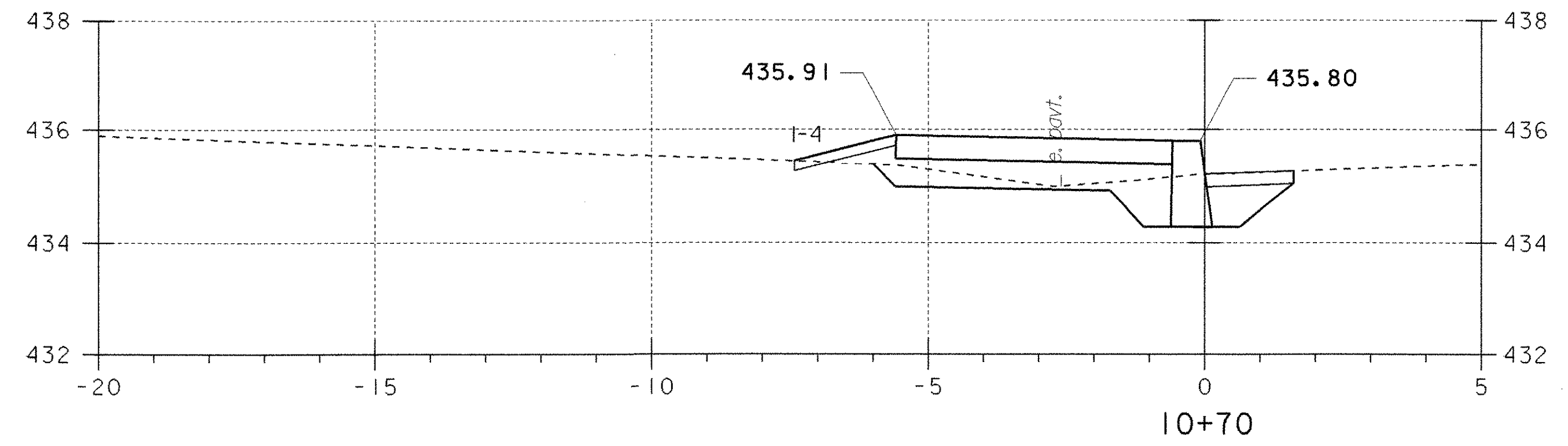
**SIGNS & PAVEMENT MARKINGS**

PROJECT NAME: Fairlee  
 PROJECT NUMBER: STP 040-(12)  
 FILE NAME: /str5/98bl18/sbl18bdr.dgn PLOT DATE: 07-MAY-2008  
 PROJECT LEADER: J. Kaplan DRAWN BY: G. Shangraw  
 DESIGNED BY: G. Shangraw CHECKED BY: J. Kaplan  
 SHEET 13 OF 28



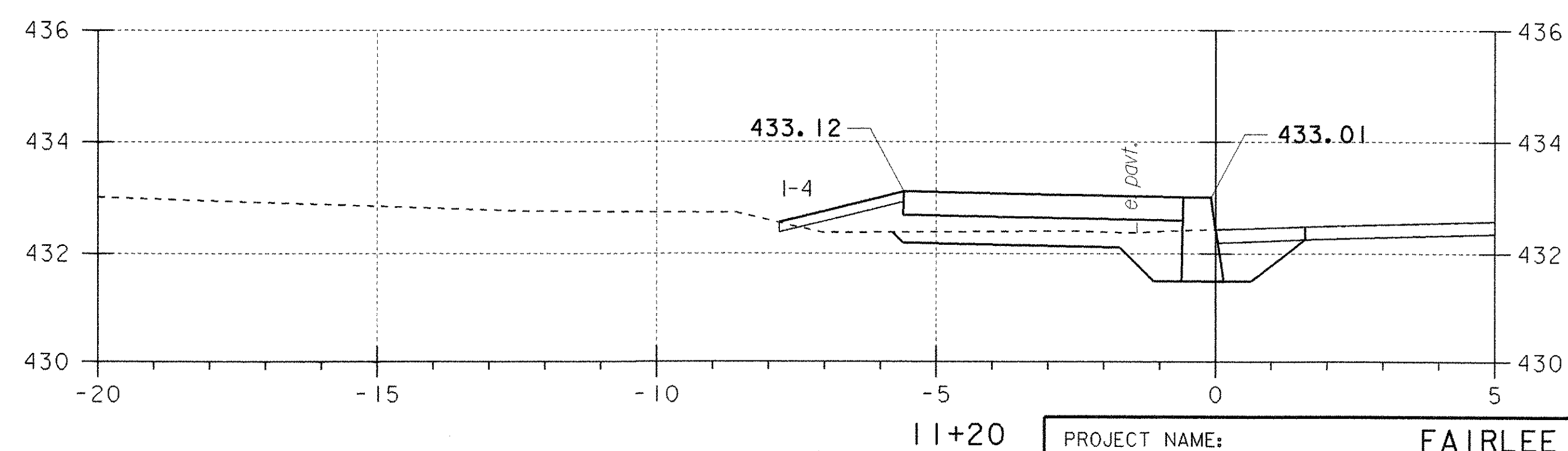
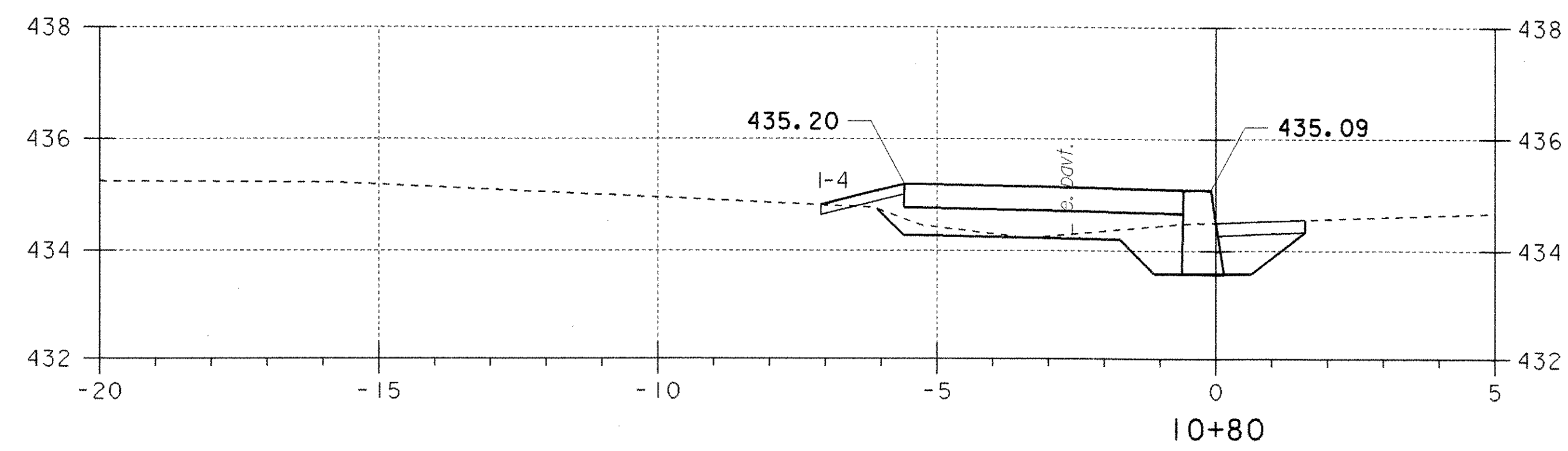
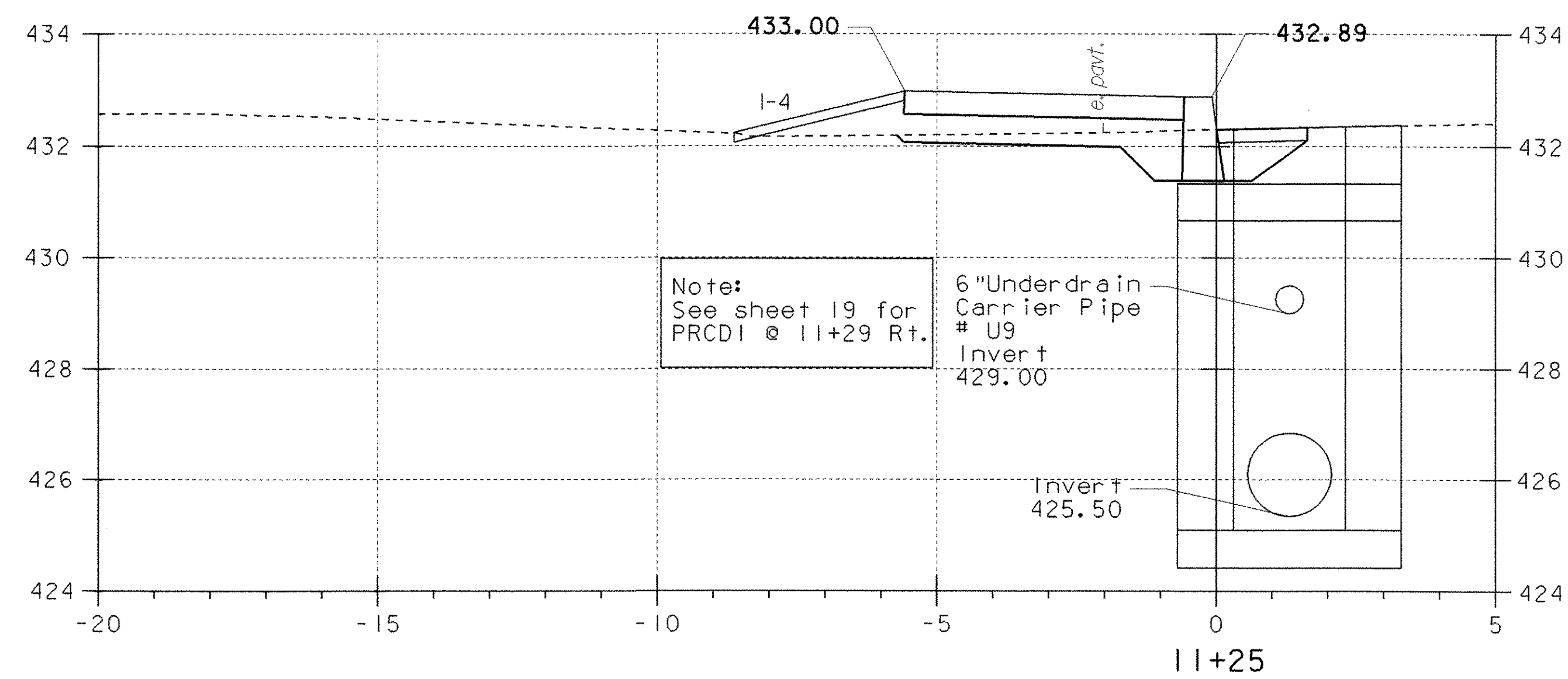
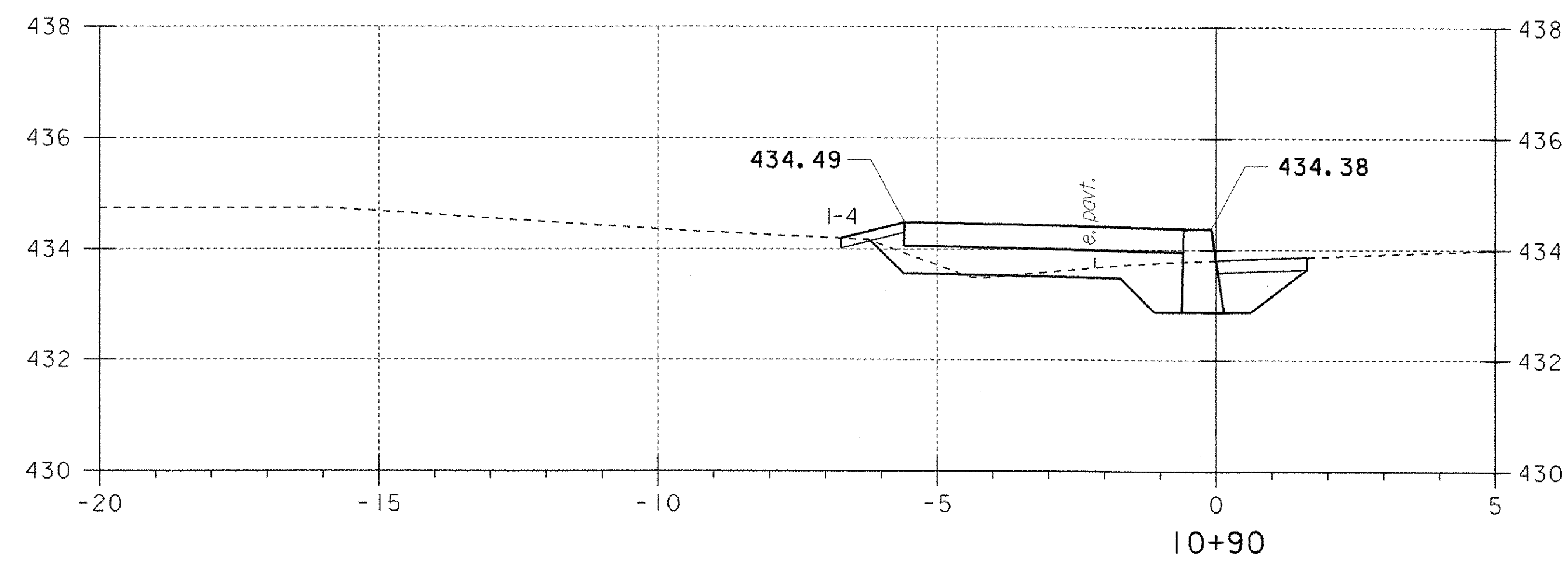
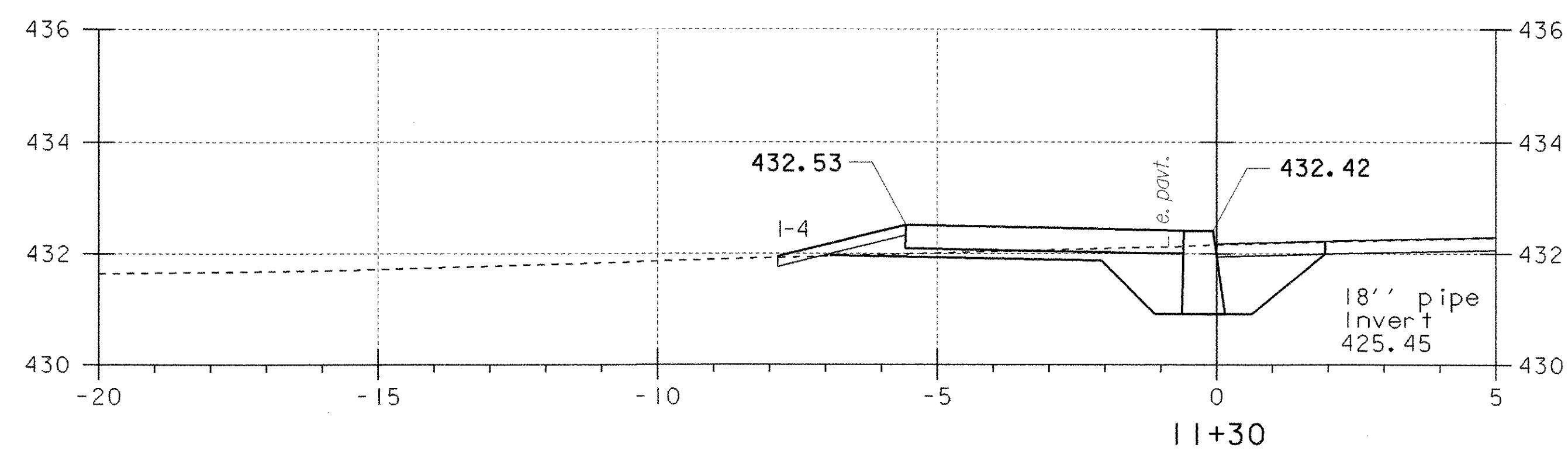
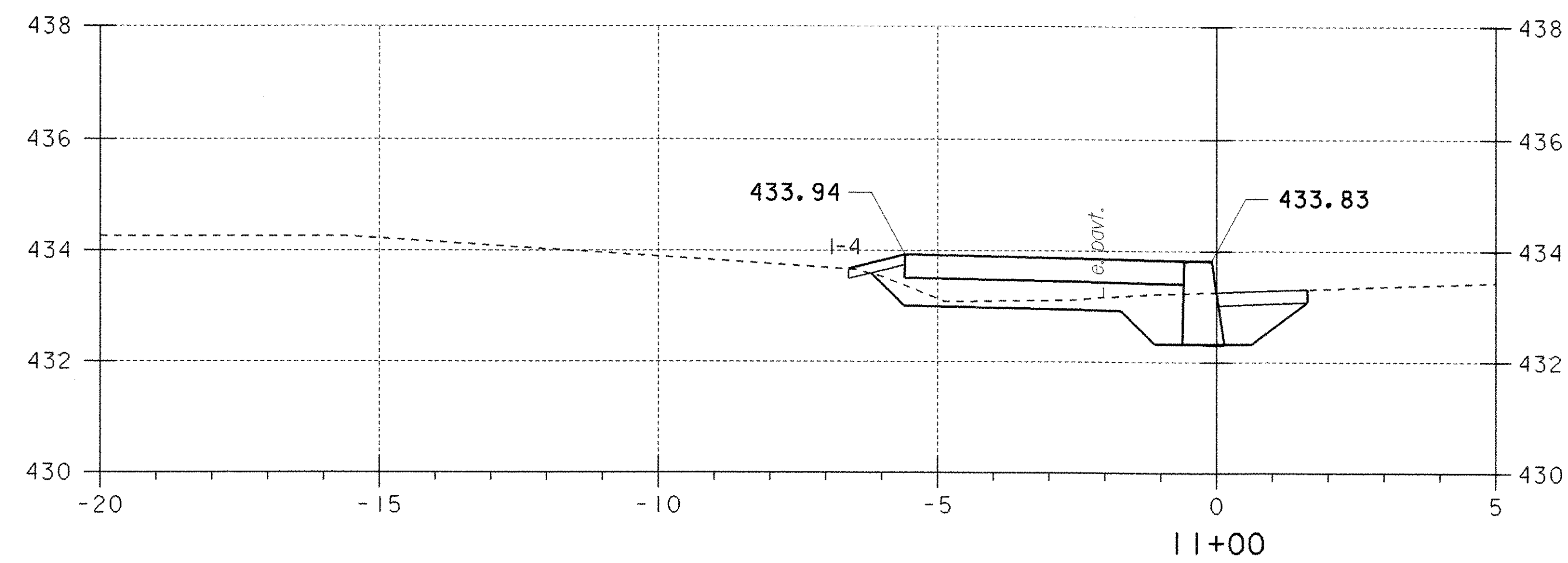
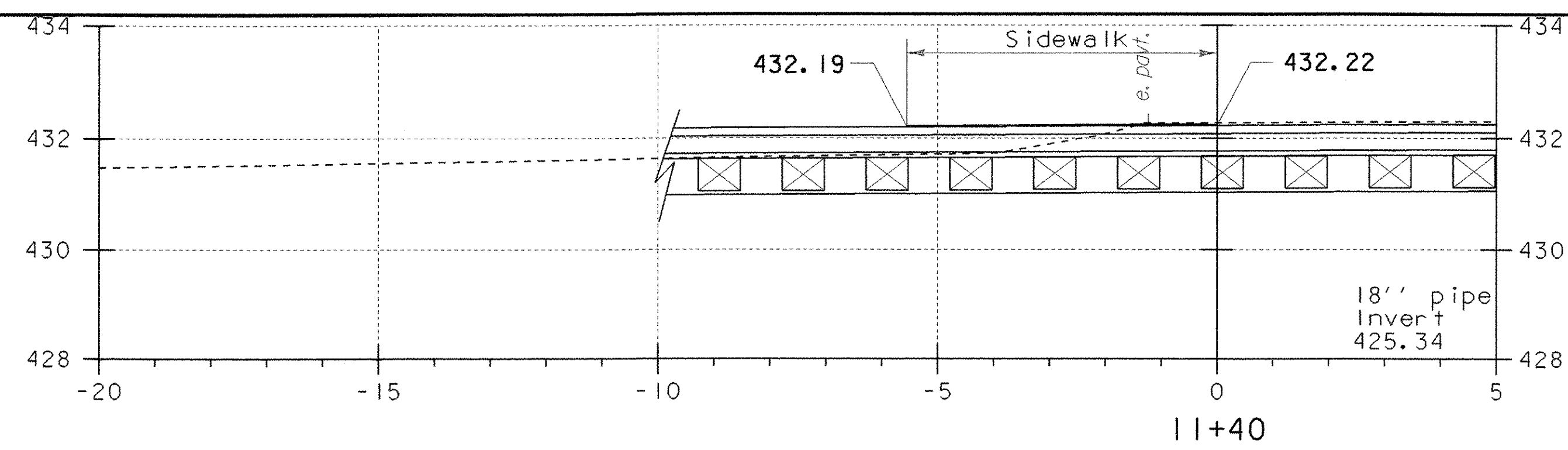
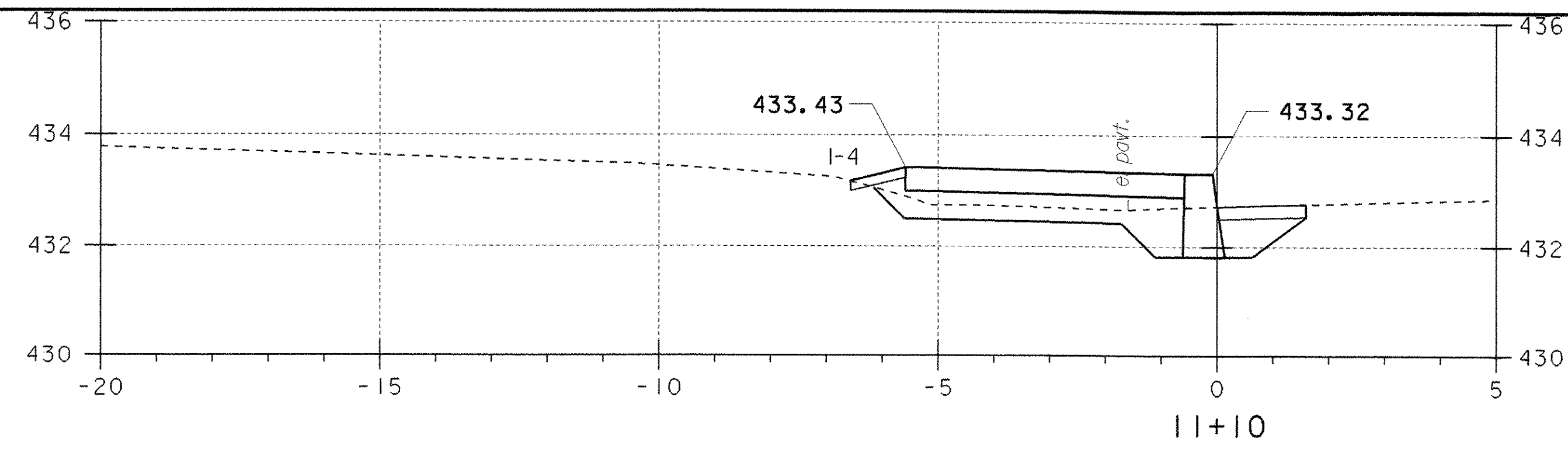


Note:  
 Sidewalk construction begins at station 9+50 LT  
 All cross sections from station 9+50 to 10+06  
 are similar to the section shown above (10+06)

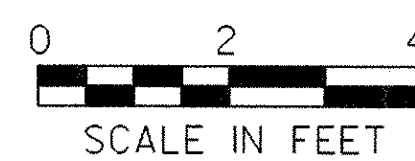


PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	STP 040-1 (2)
FILE NAME: STPr5\98b118\sb118xs.dgn	PLOT DATE: 07-MAY-2008
PROJECT LEADER: J. Kaplan	DRAWN BY: G. Shangraw
DESIGNED BY: G. Shangraw	CHECKED BY: J. Kaplan
Sb118XS1.i	SHEET 15 OF 28

**SIDEWALK CROSS SECTIONS**

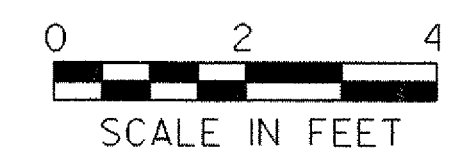
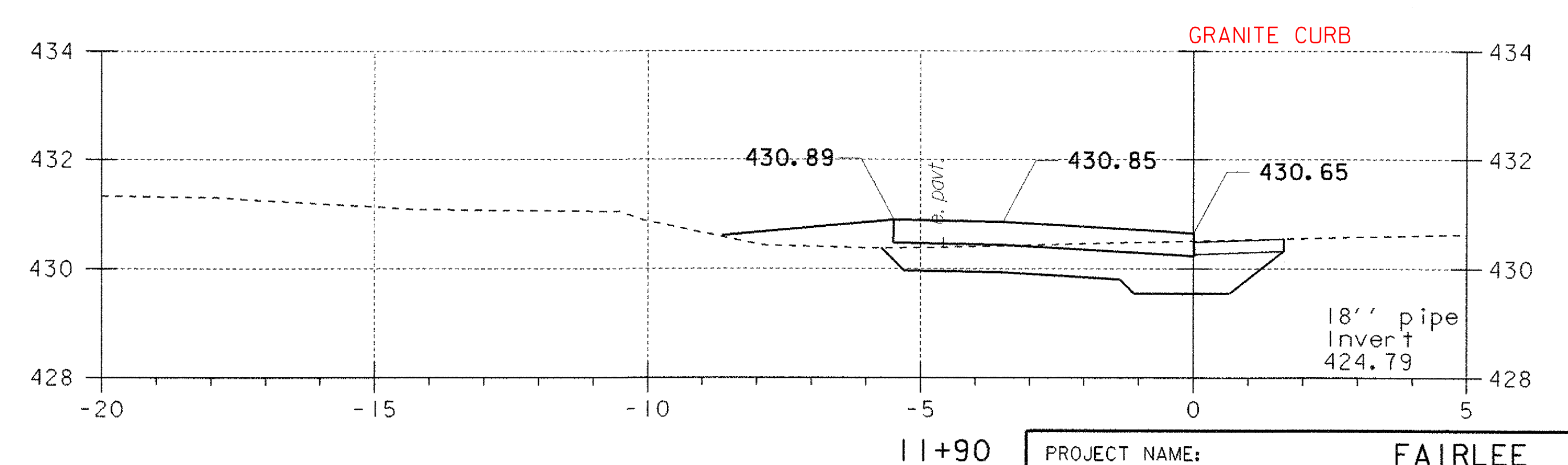
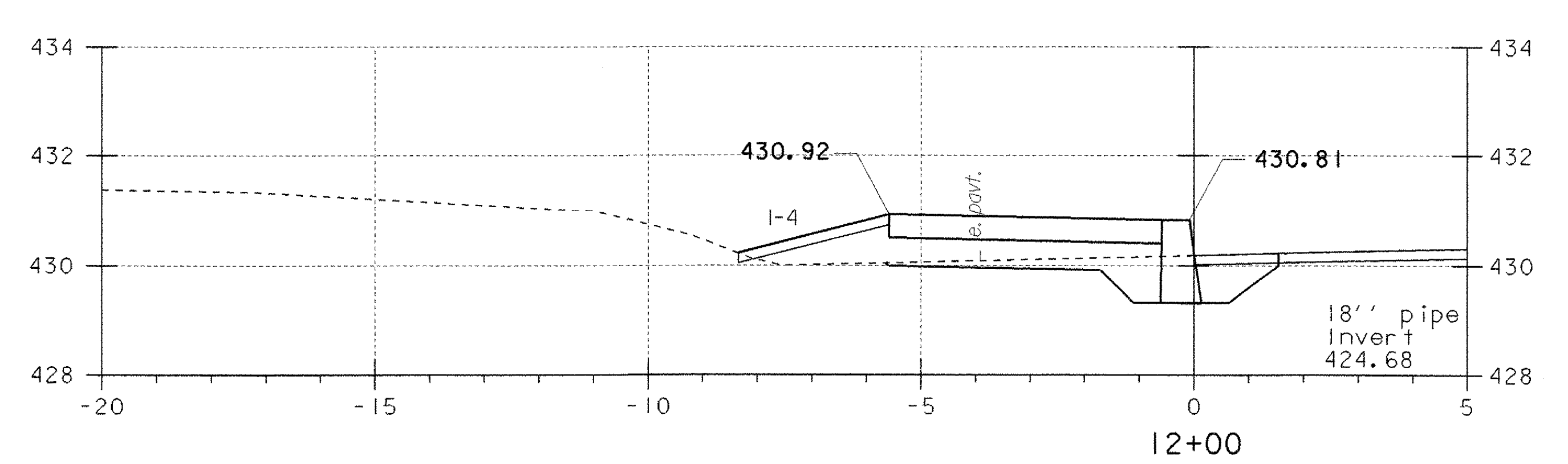
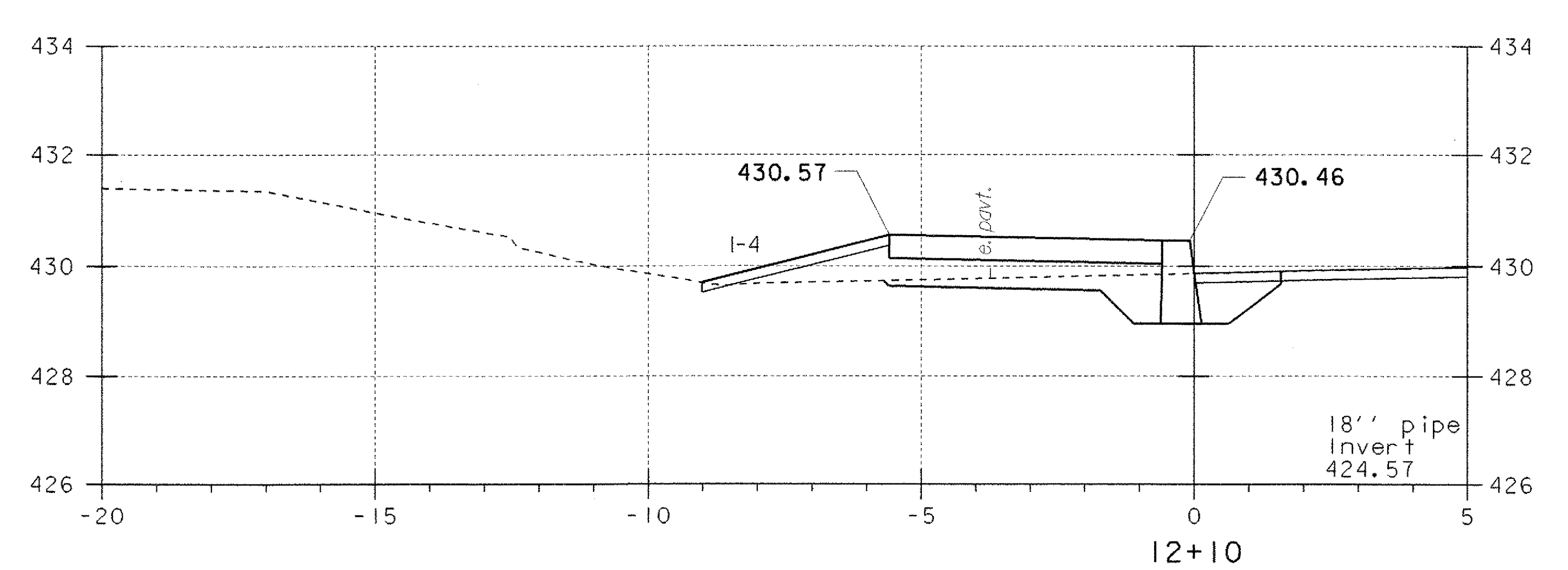
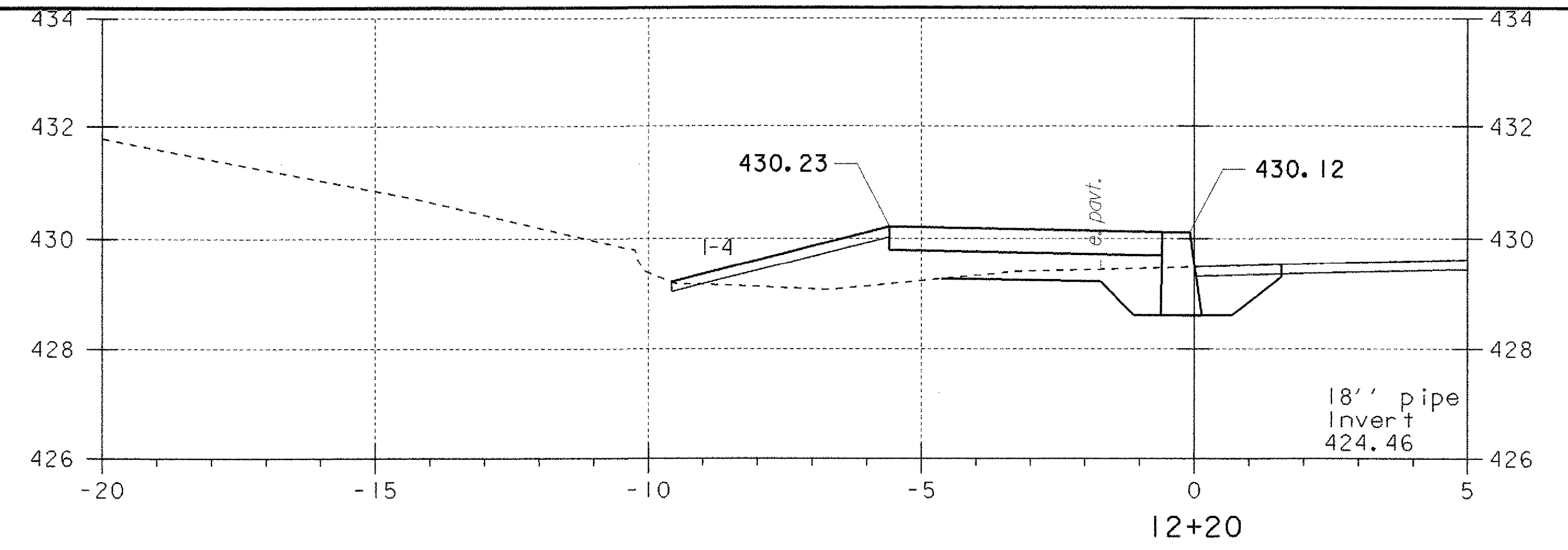
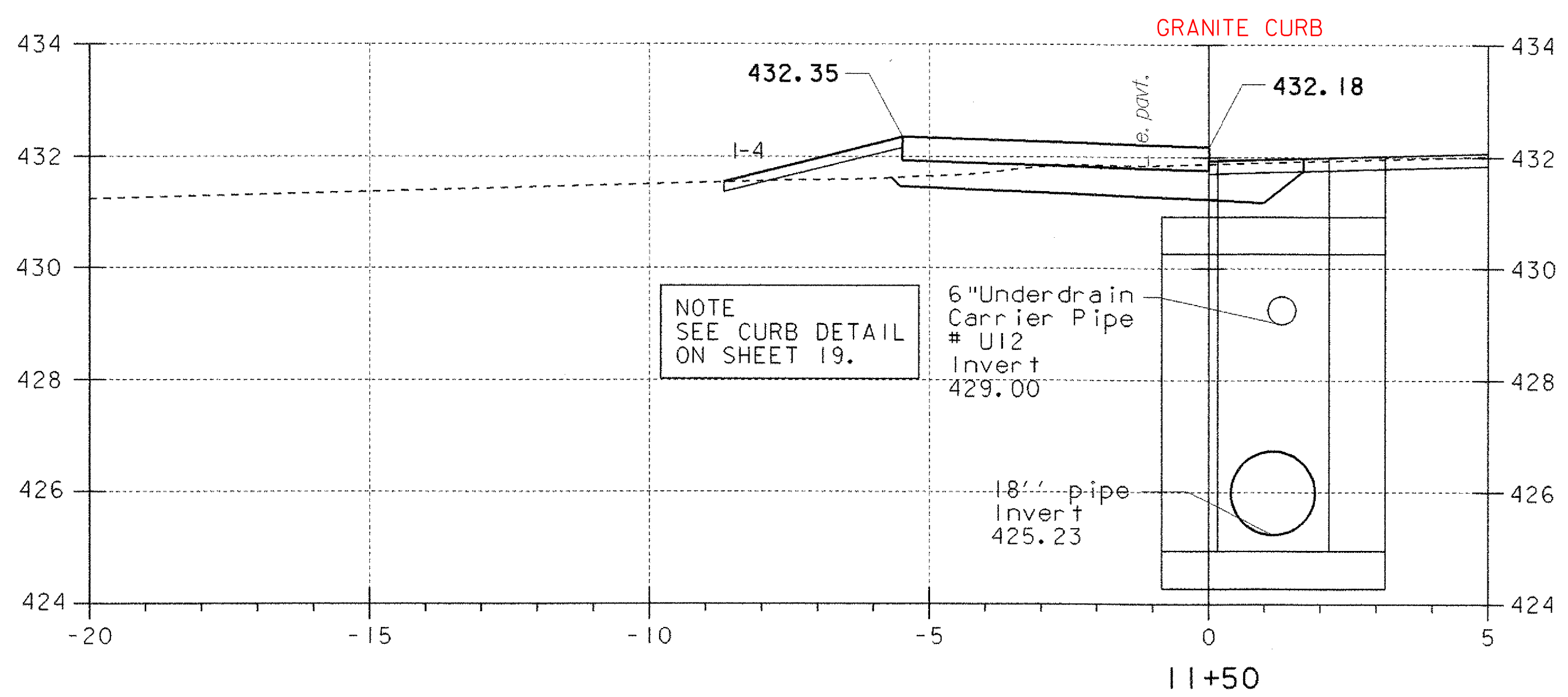
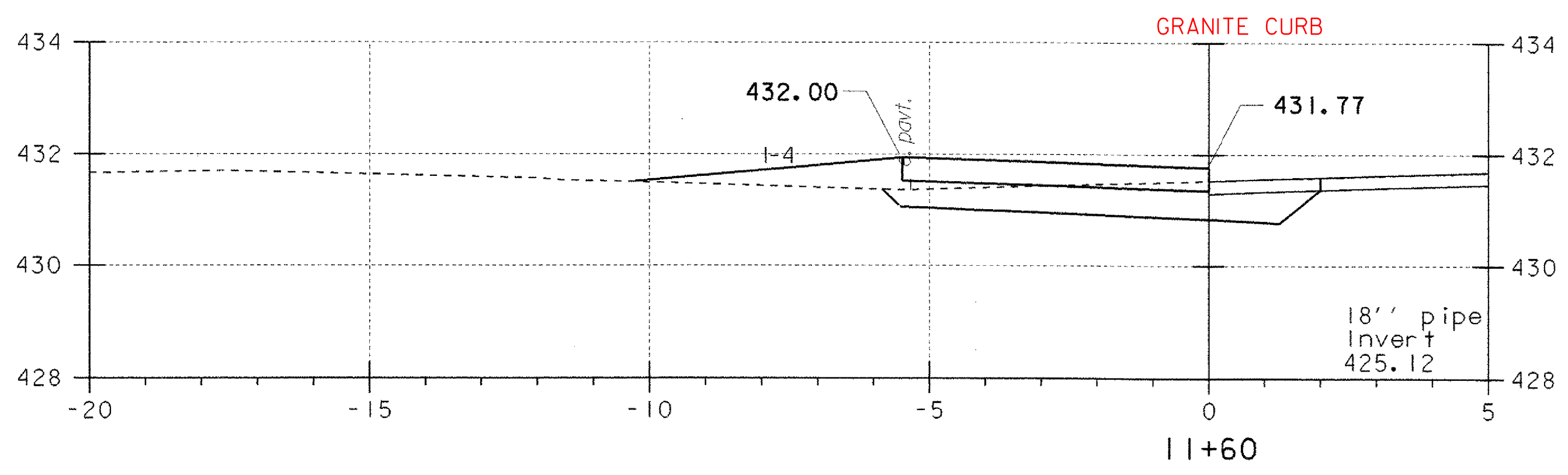
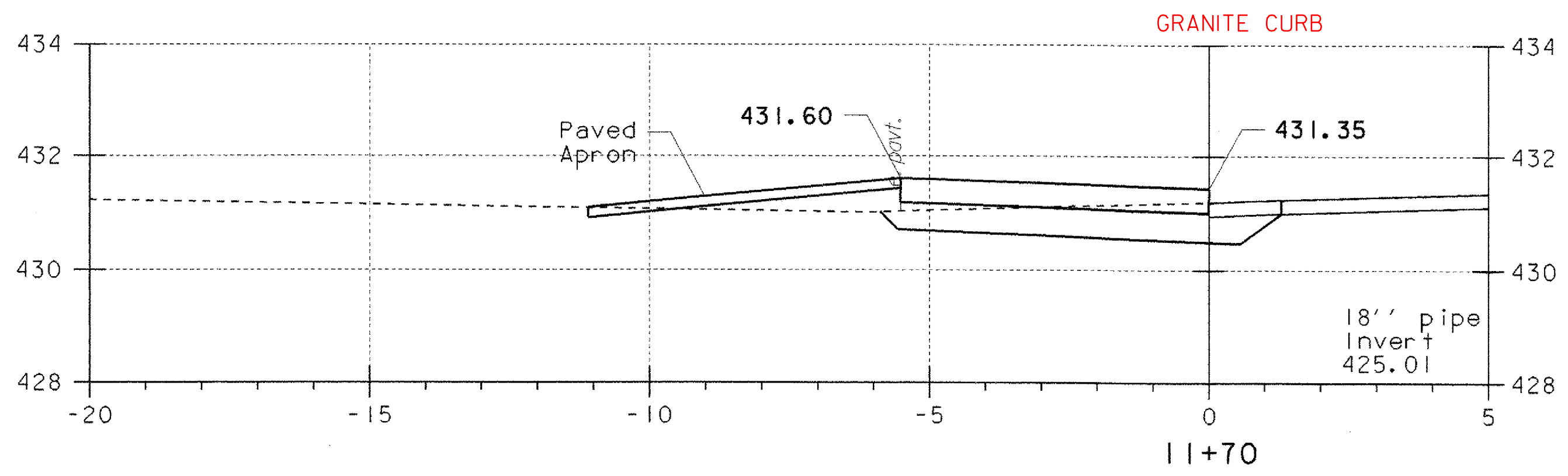
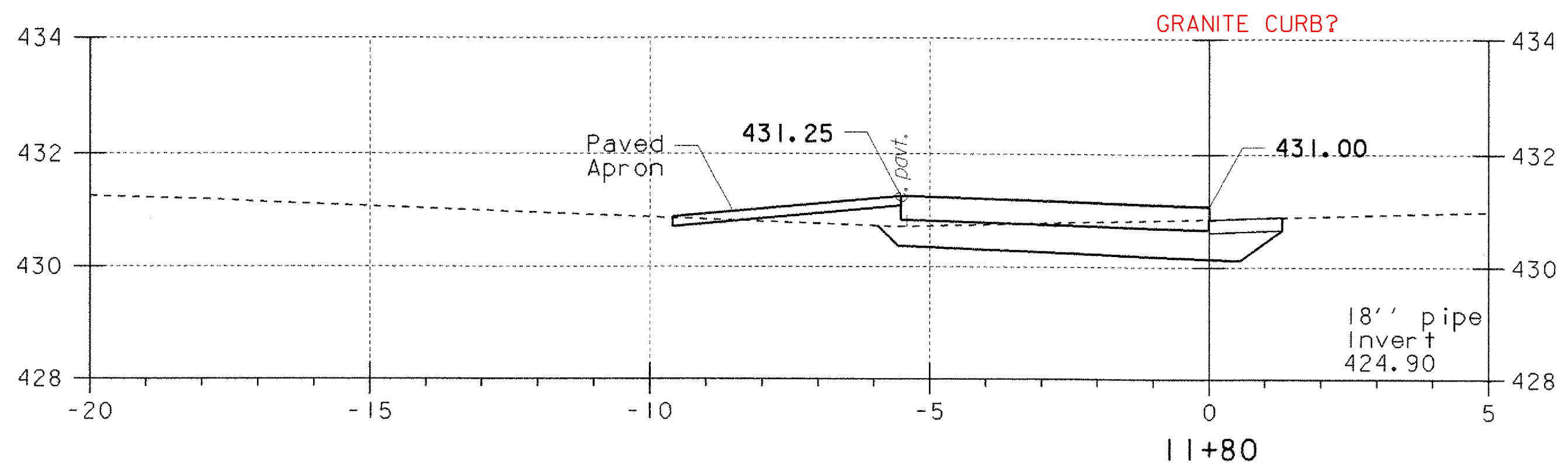


**SIDEWALK CROSS SECTIONS**

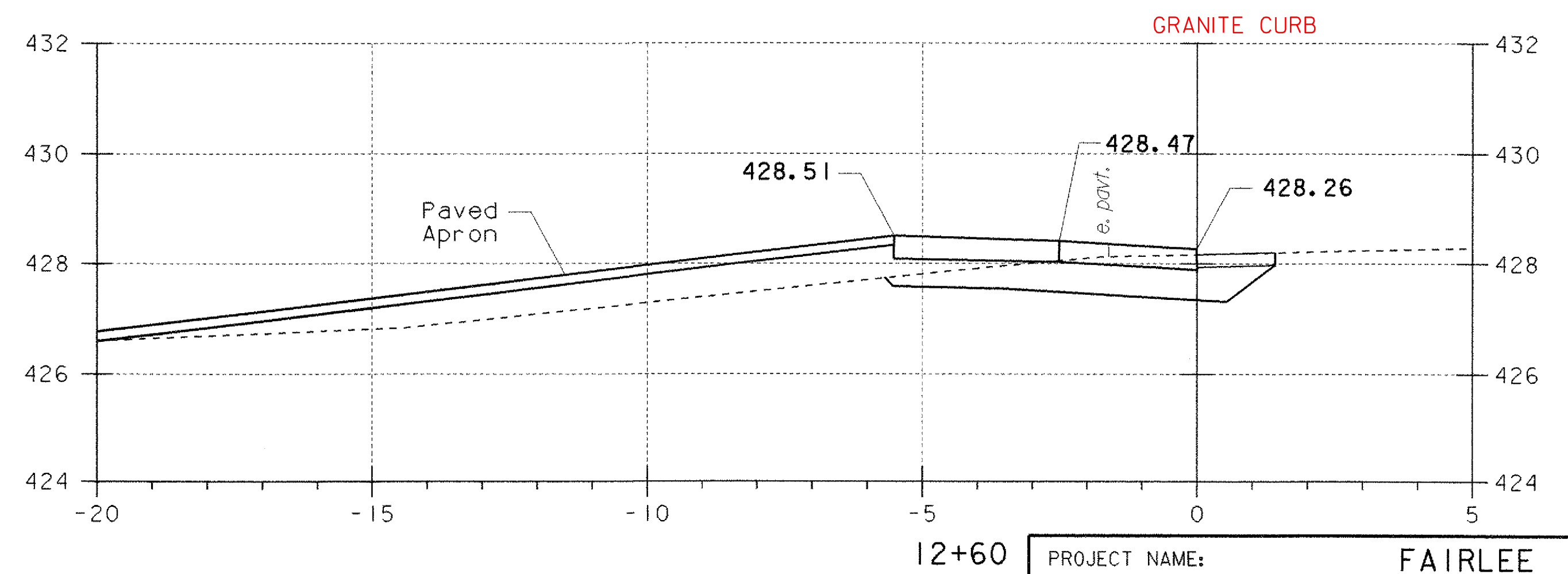
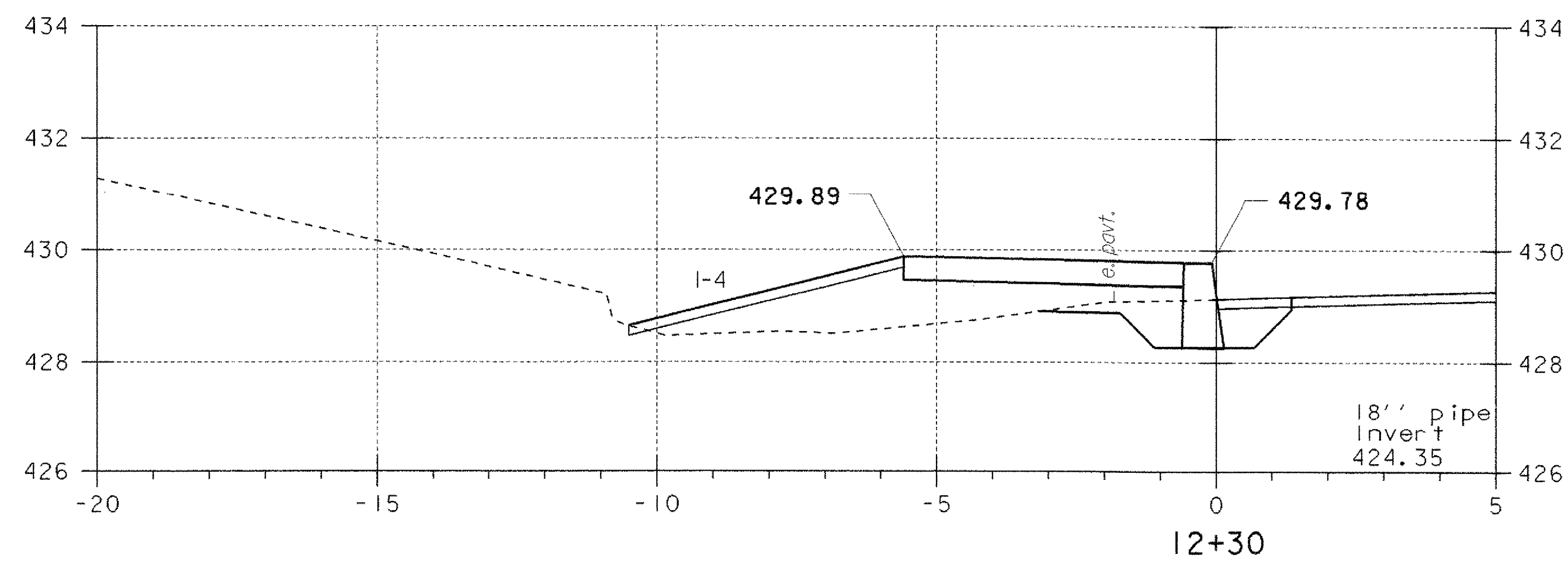
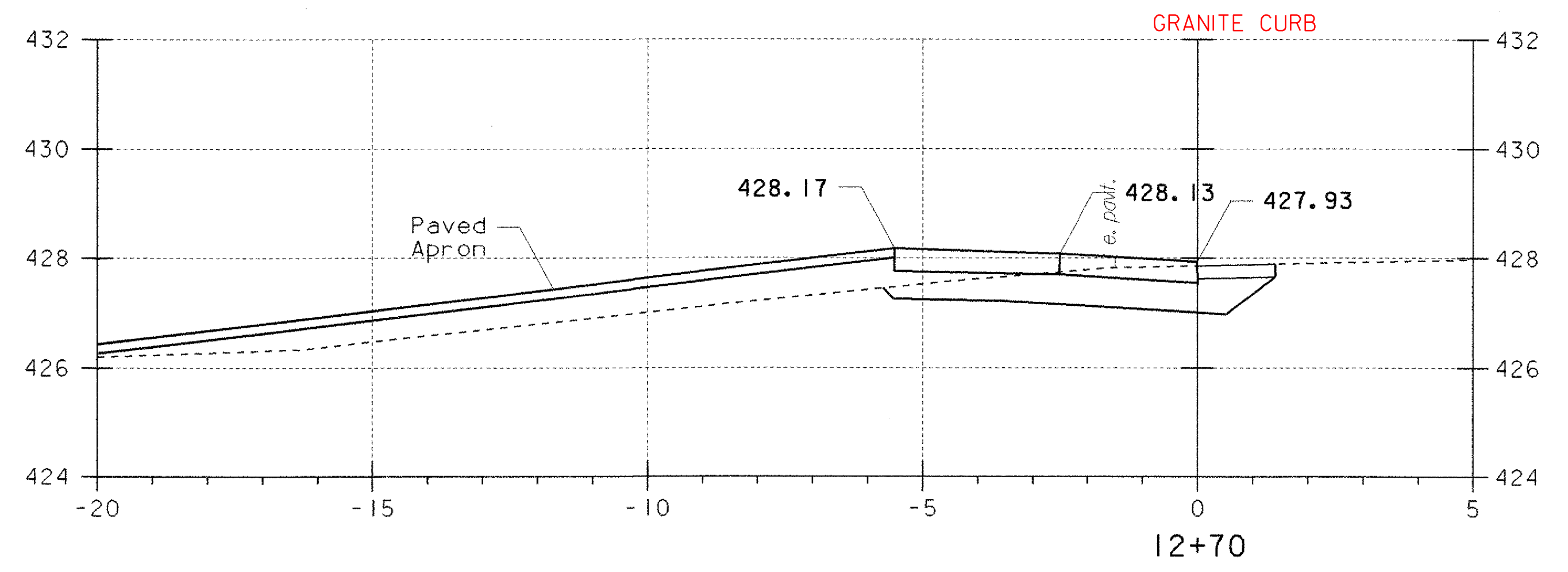
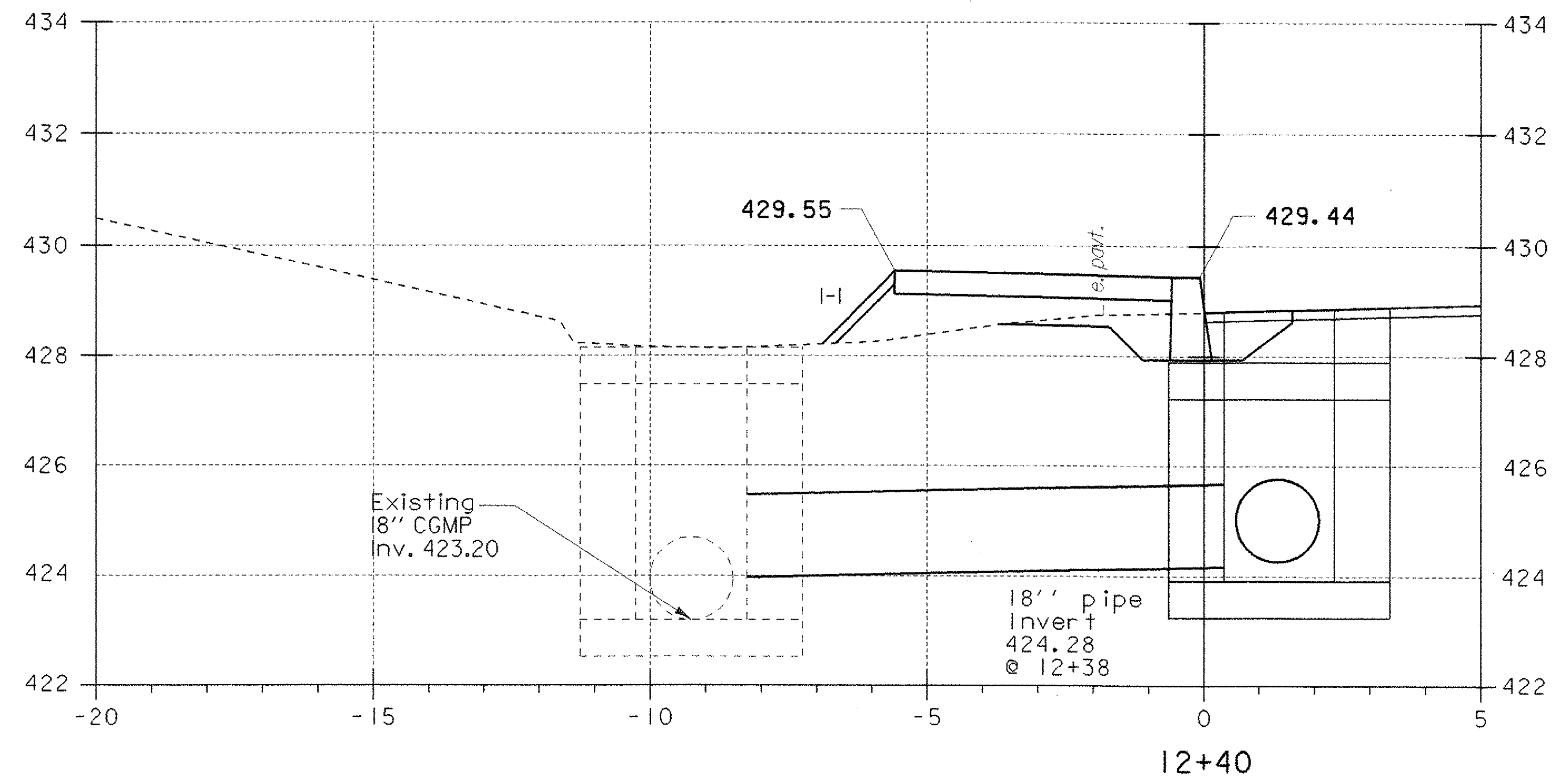
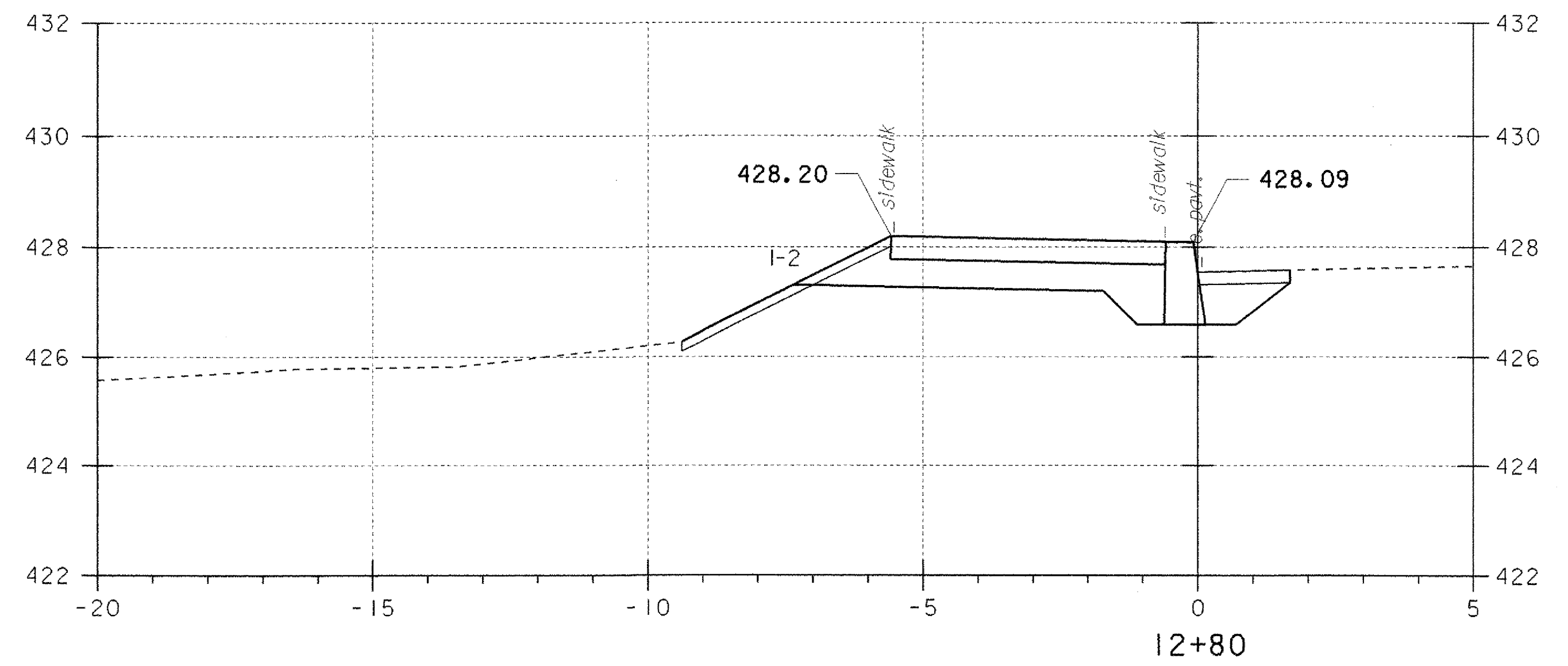
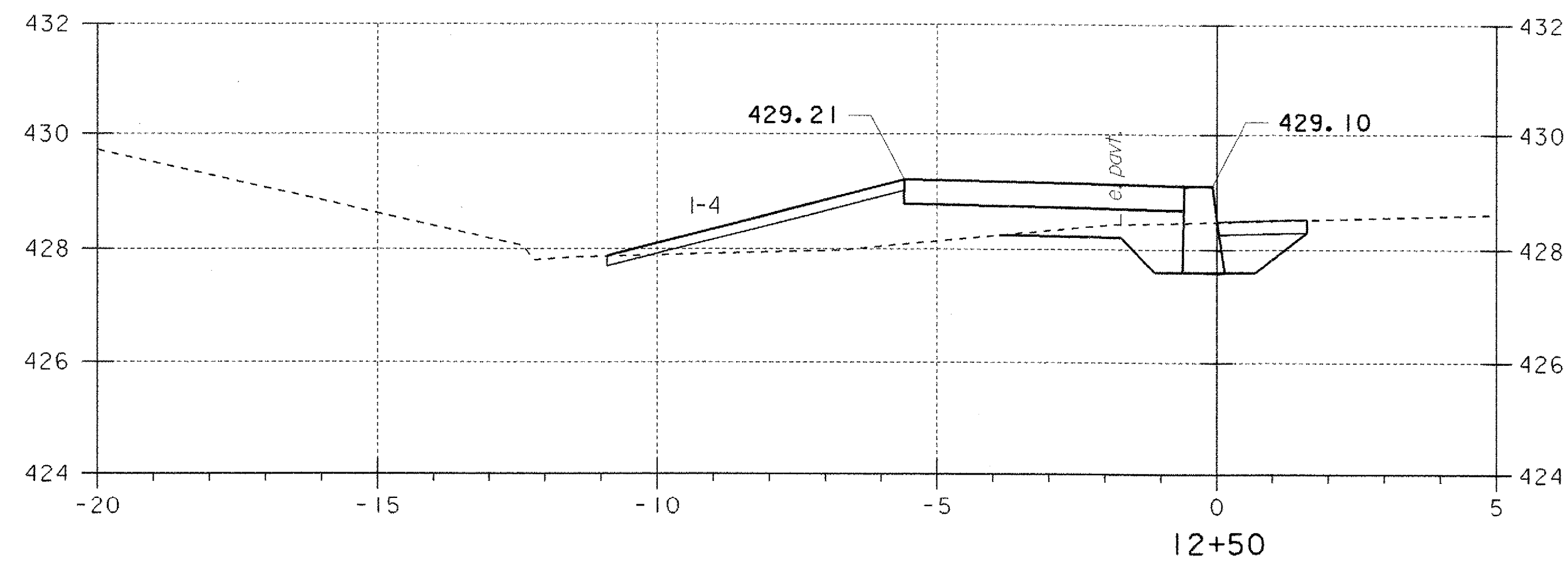


PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	STP 040-1 (2)
FILE NAME: STPr5\98b118\sb118xs.dgn	PLOT DATE: 07-MAY-2008
PROJECT LEADER: J. Kaplan	DRAWN BY: G. Shangraw
DESIGNED BY: G. Shangraw	CHECKED BY: J. Kaplan
Sb118XS2.i	SHEET 16 OF 28

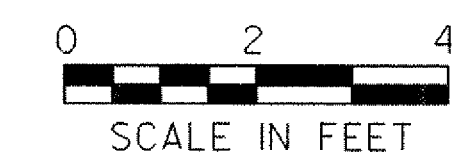
**SIDEWALK CROSS SECTIONS**



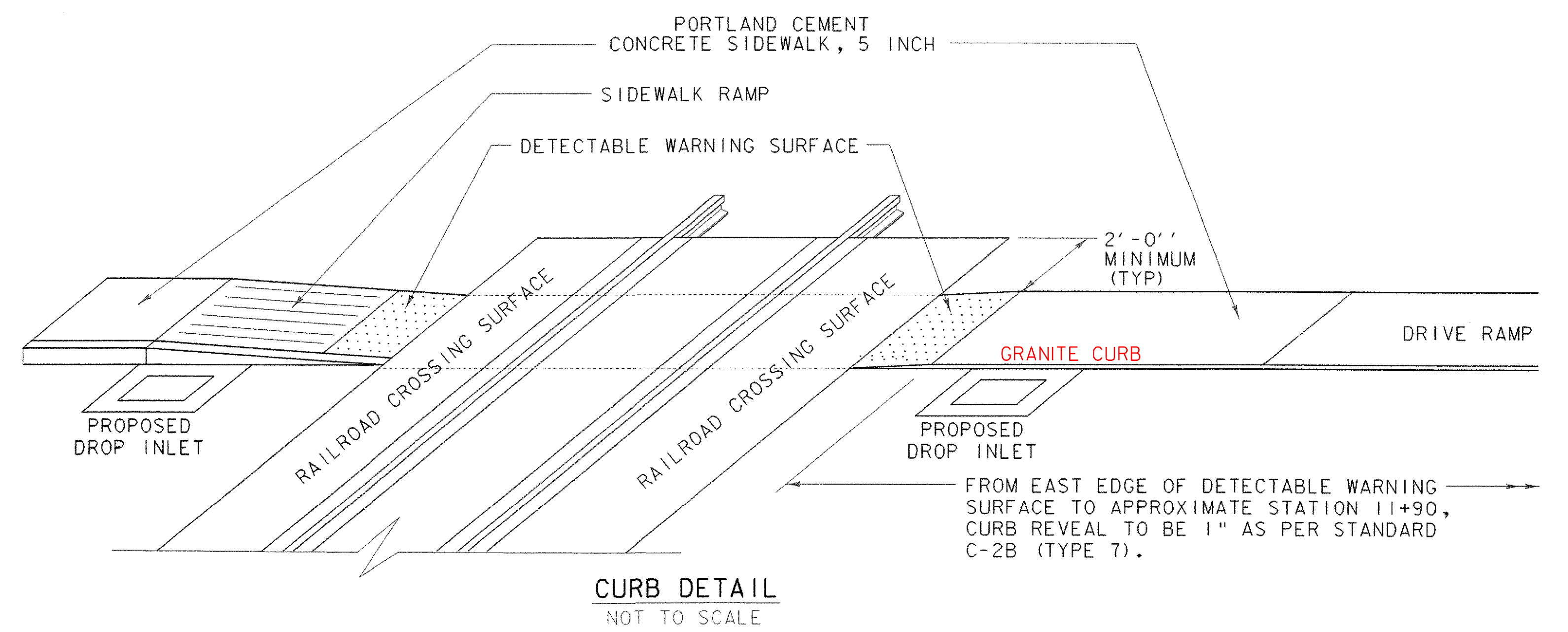
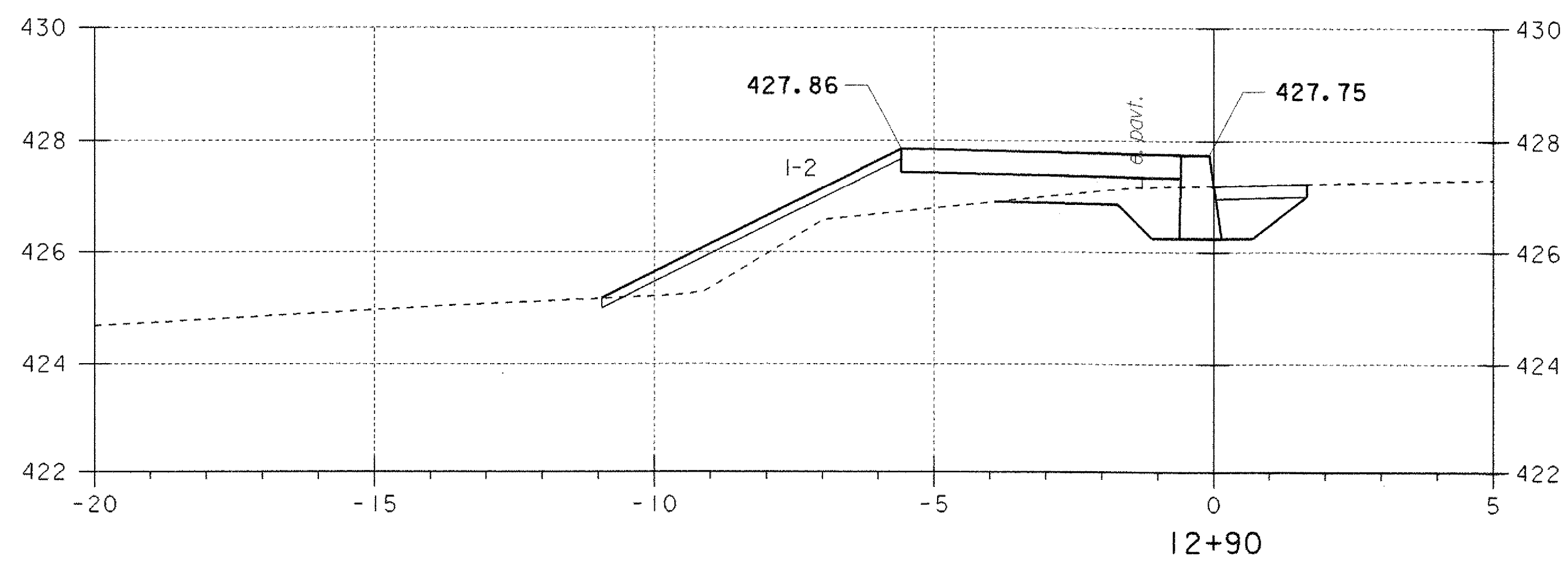
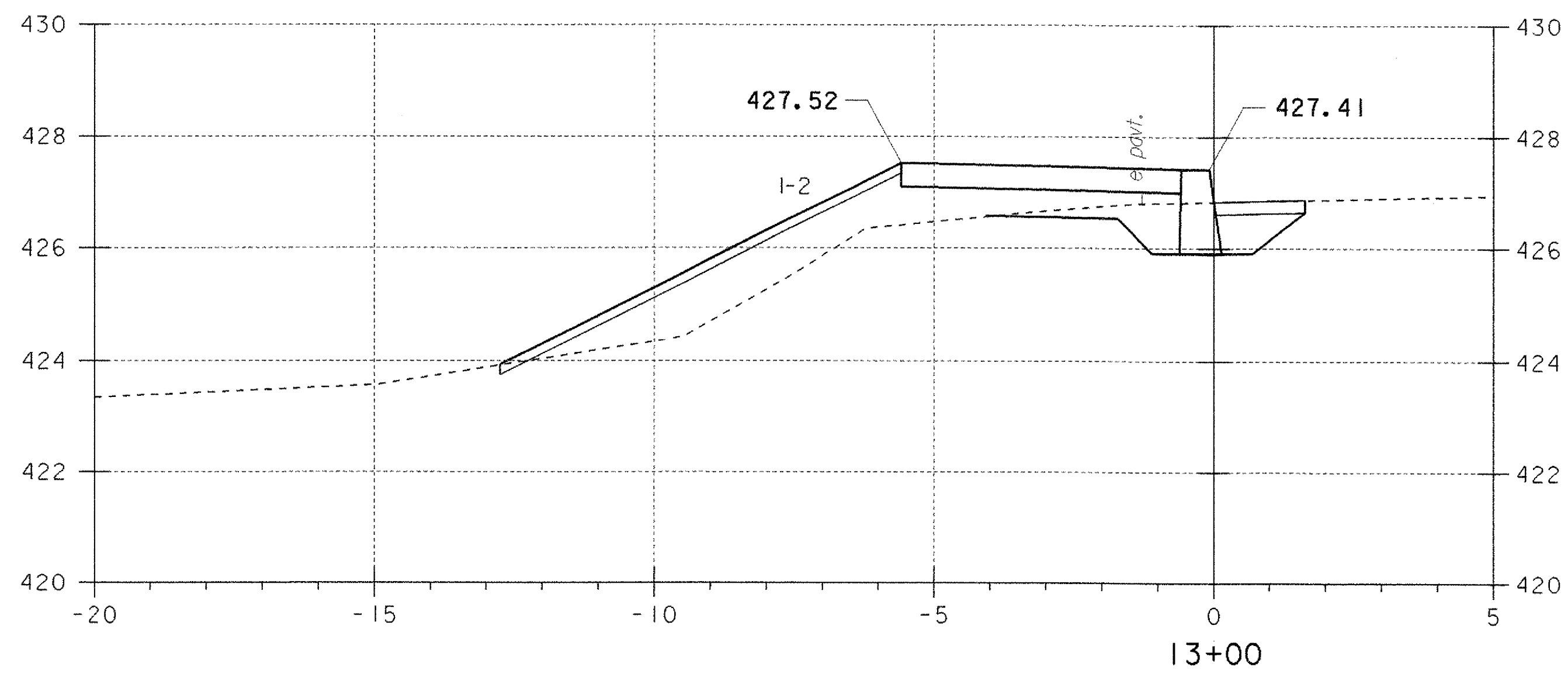
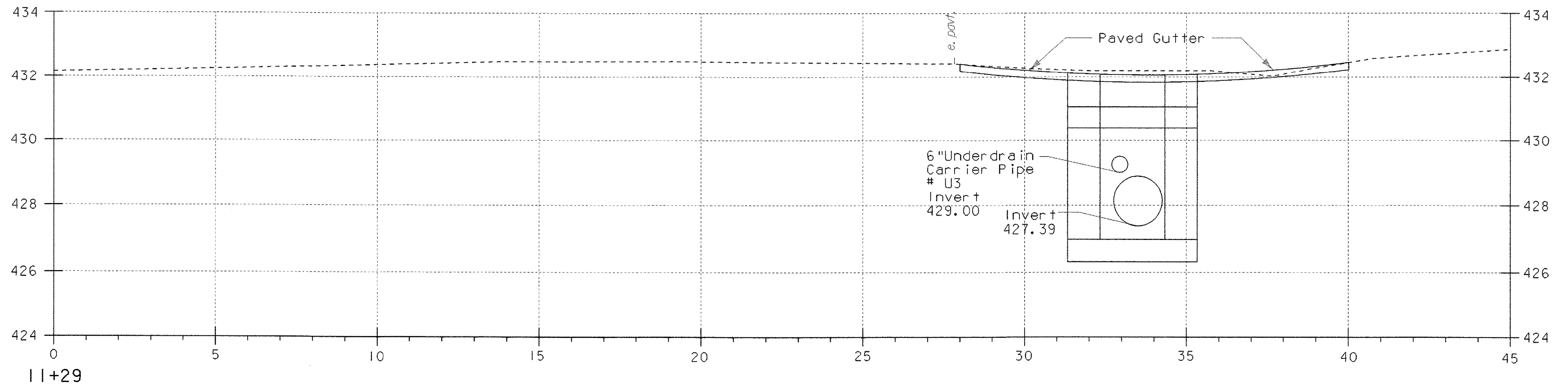
PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	STP 040-1 (2)
FILE NAME:	STPr5\98b118\sb118xs.dgn
PROJECT LEADER:	J. Kaplan
DESIGNED BY:	G. Shangraw
PLOT DATE:	07-MAY-2008
DRAWN BY:	G. Shangraw
CHECKED BY:	J. Kaplan
SHEET	17 OF 28



PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	STP 040-1 (2)
FILE NAME: STPr5\98b118\sb118xs.dgn	PLOT DATE: 07-MAY-2008
PROJECT LEADER: J. Kaplan	DRAWN BY: G. Shangraw
DESIGNED BY: G. Shangraw	CHECKED BY: J. Kaplan
Sb118XS4.i	SHEET 18 OF 28

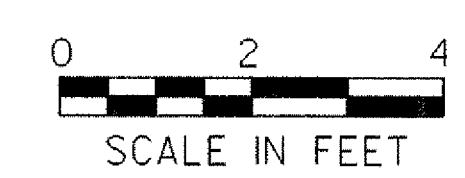


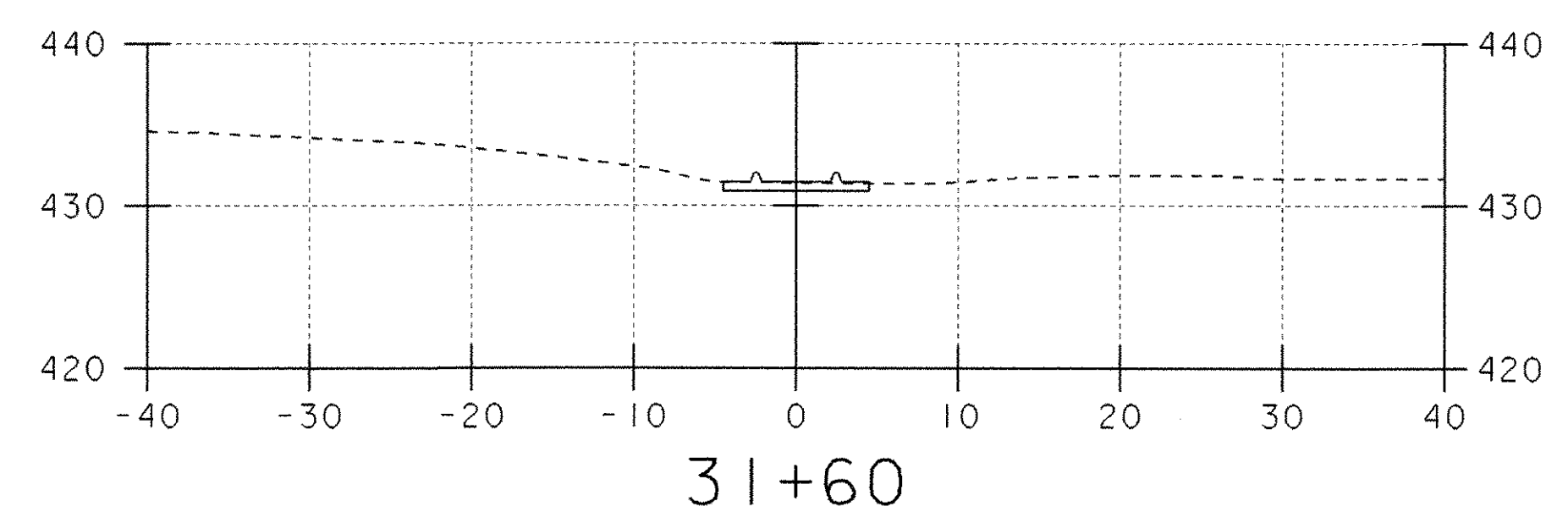
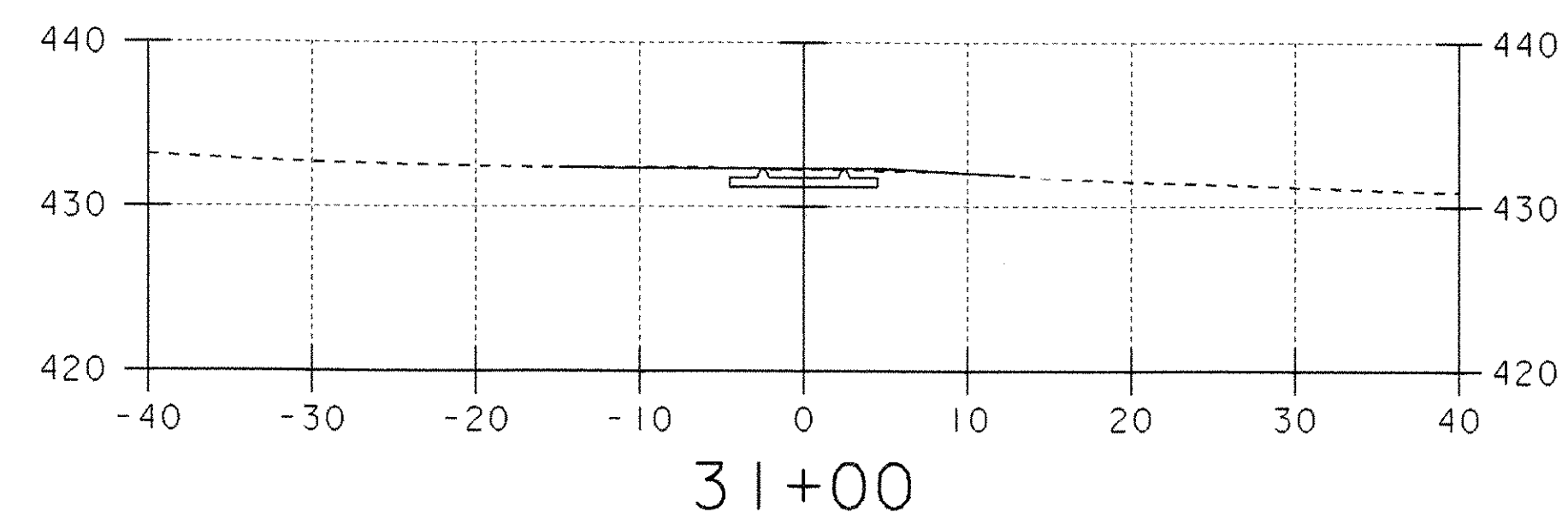
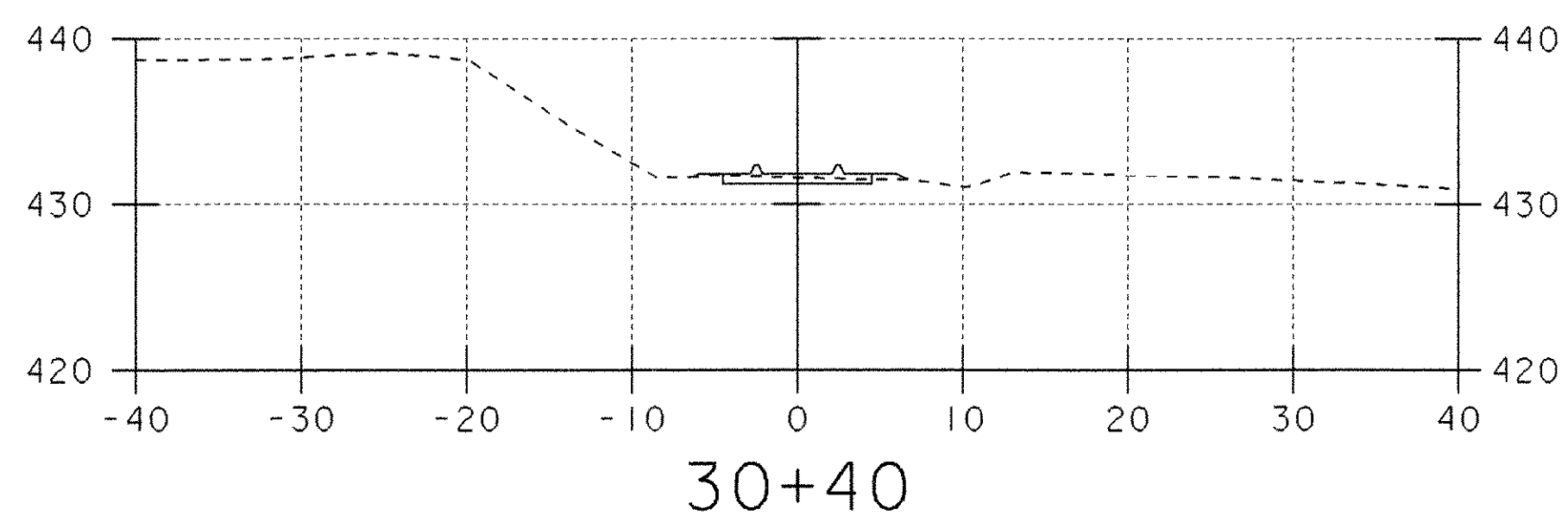
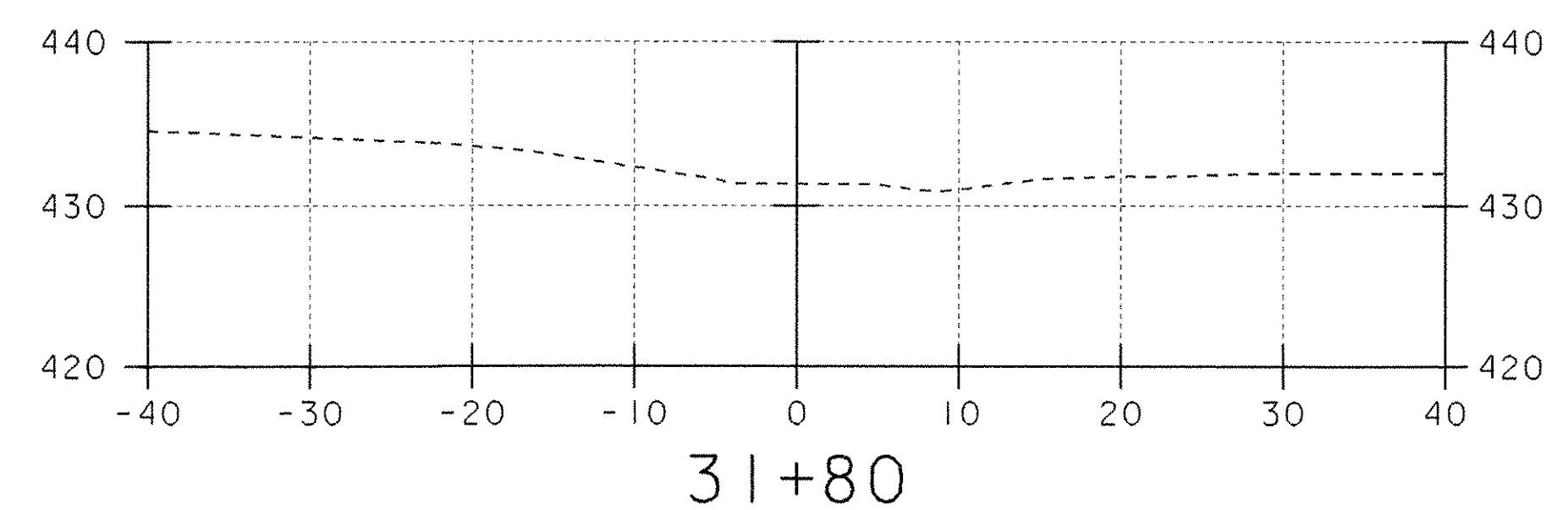
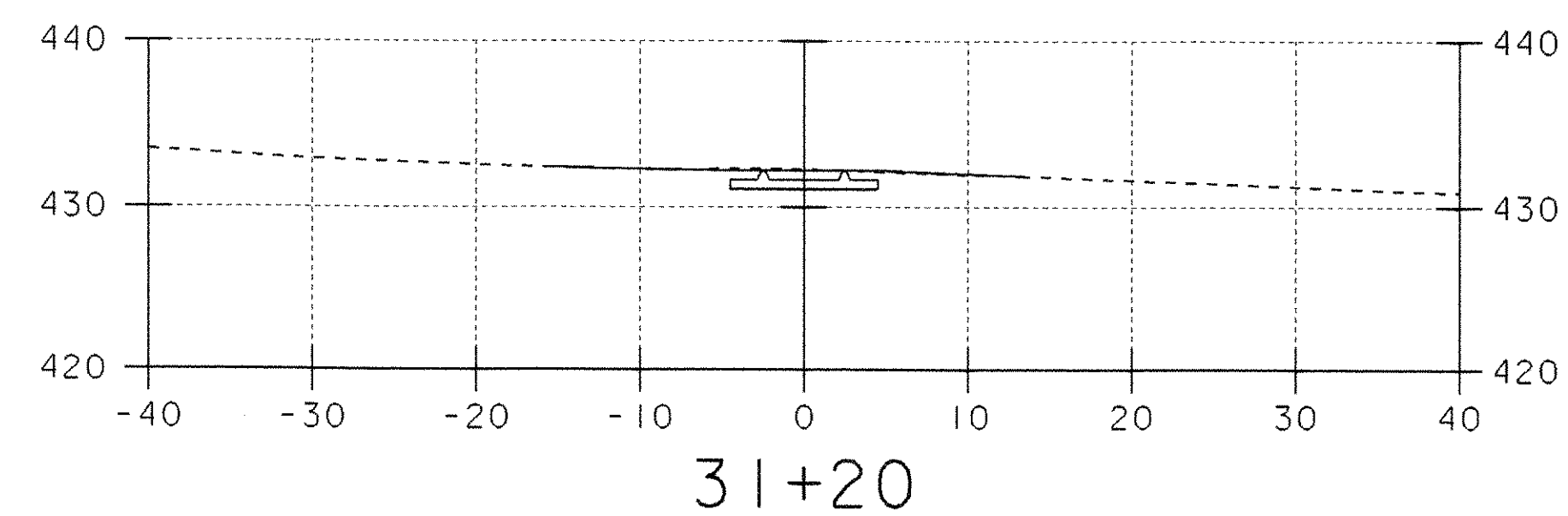
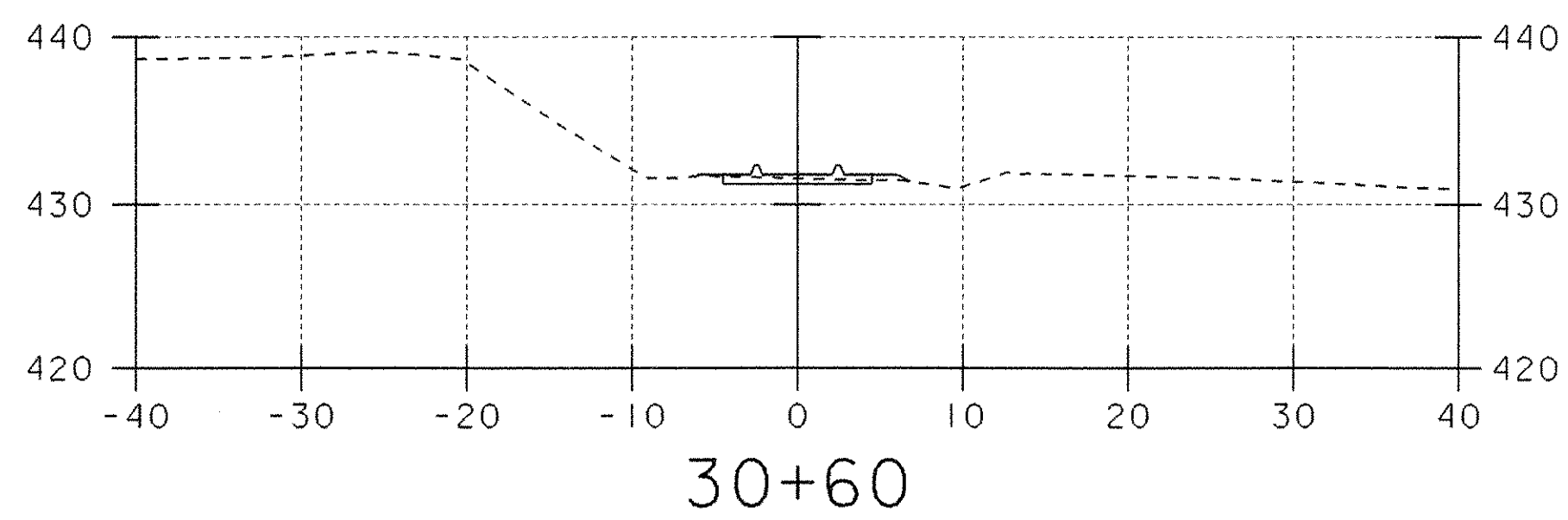
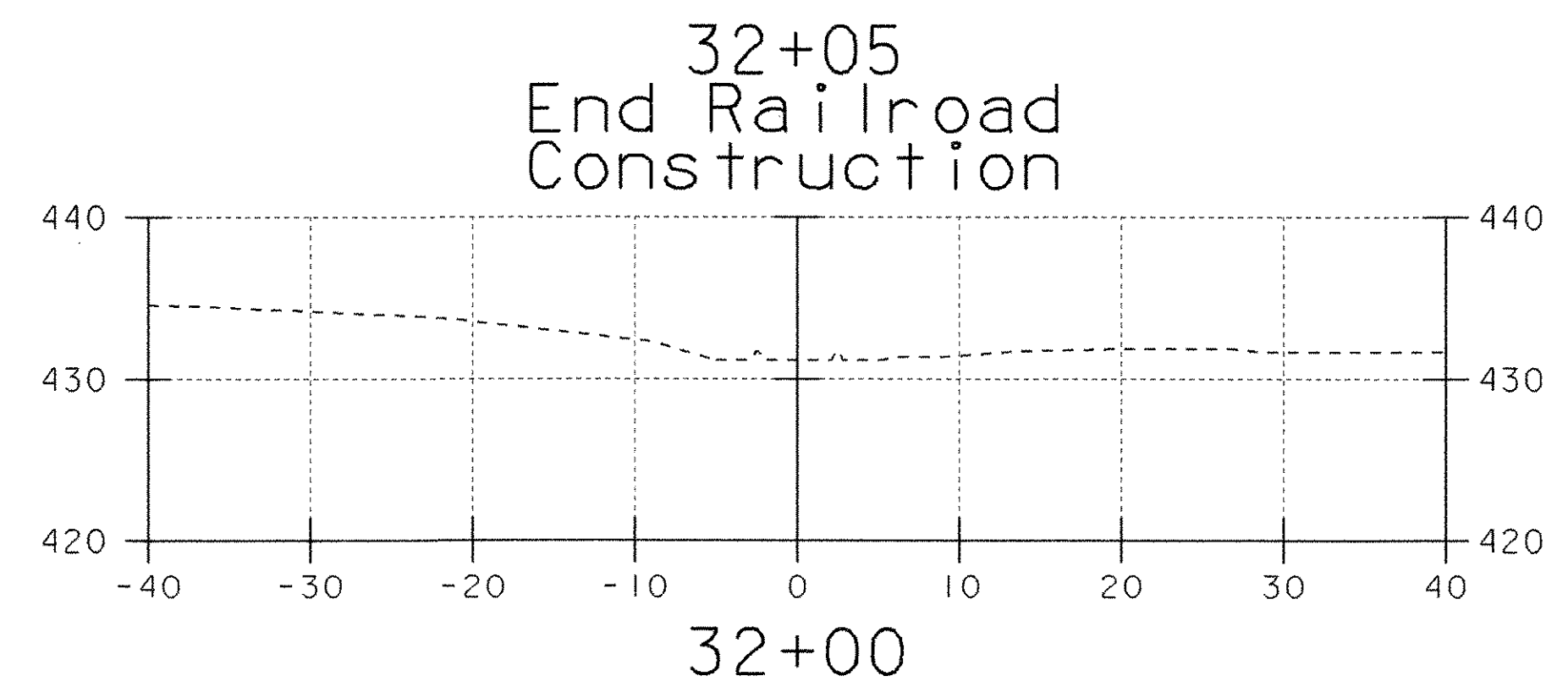
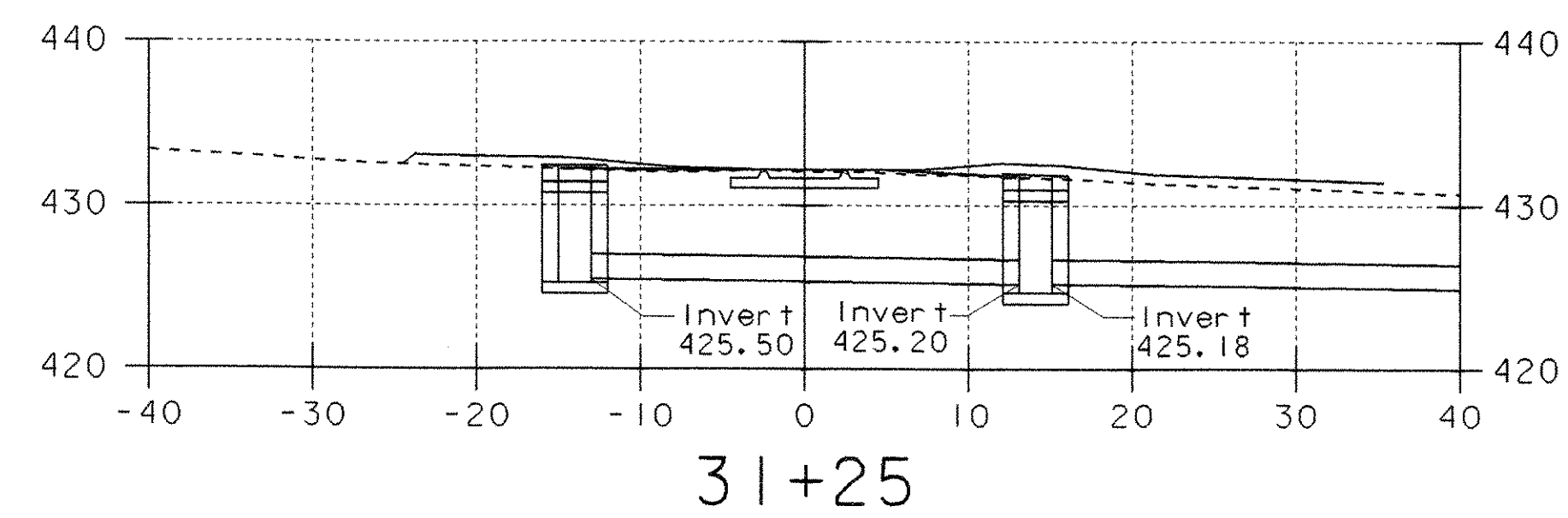
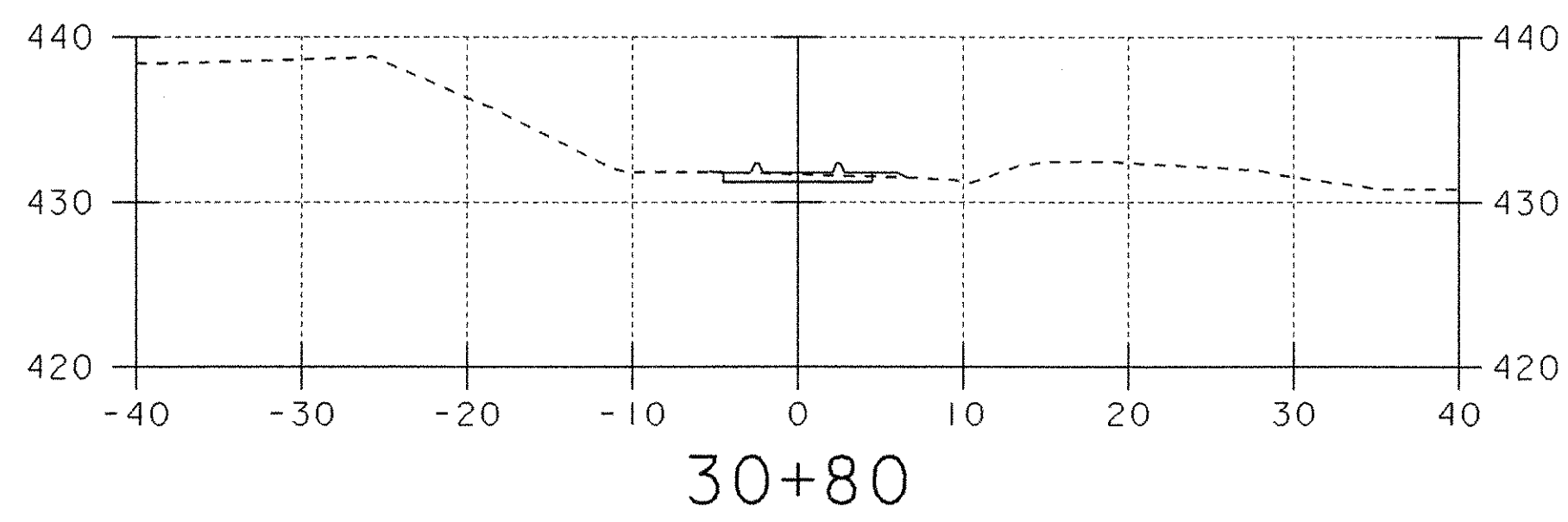
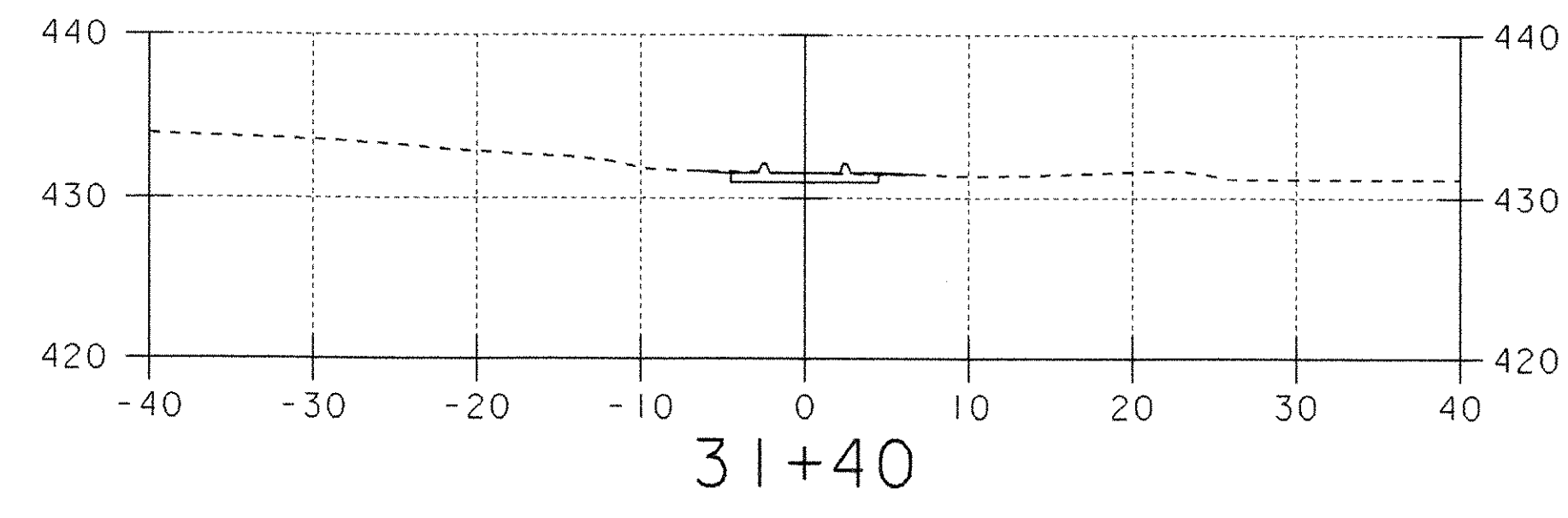
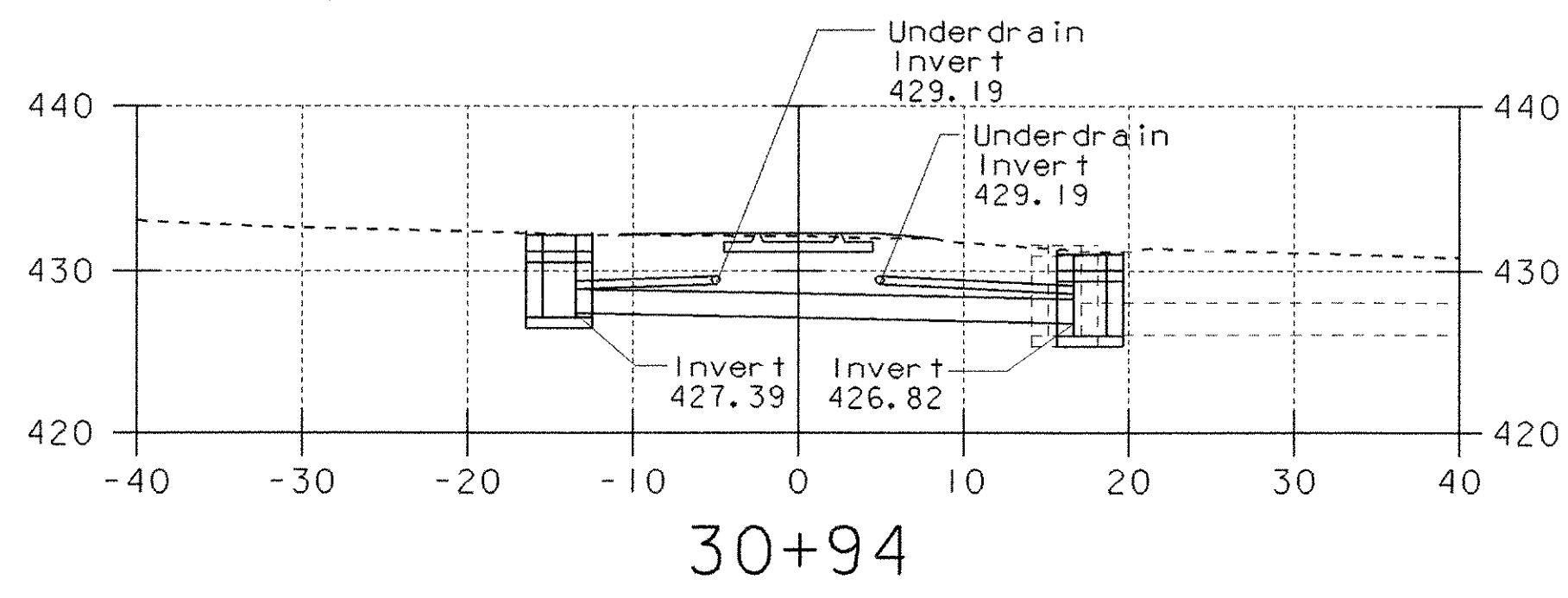
**SIDEWALK CROSS SECTIONS**



**SIDEWALK CROSS SECTIONS**

PROJECT NAME:	FAIRLEE
PROJECT NUMBER:	STP 040-1 (2)
FILE NAME: STPr5\98b118\sb118xs.dgn	PLOT DATE: 07-MAY-2008
PROJECT LEADER: J. Kaplan	DRAWN BY: G. Shangraw
DESIGNED BY: G. Shangraw	CHECKED BY: J. Kaplan
Sb118XS5.i	SHEET 19 OF 28



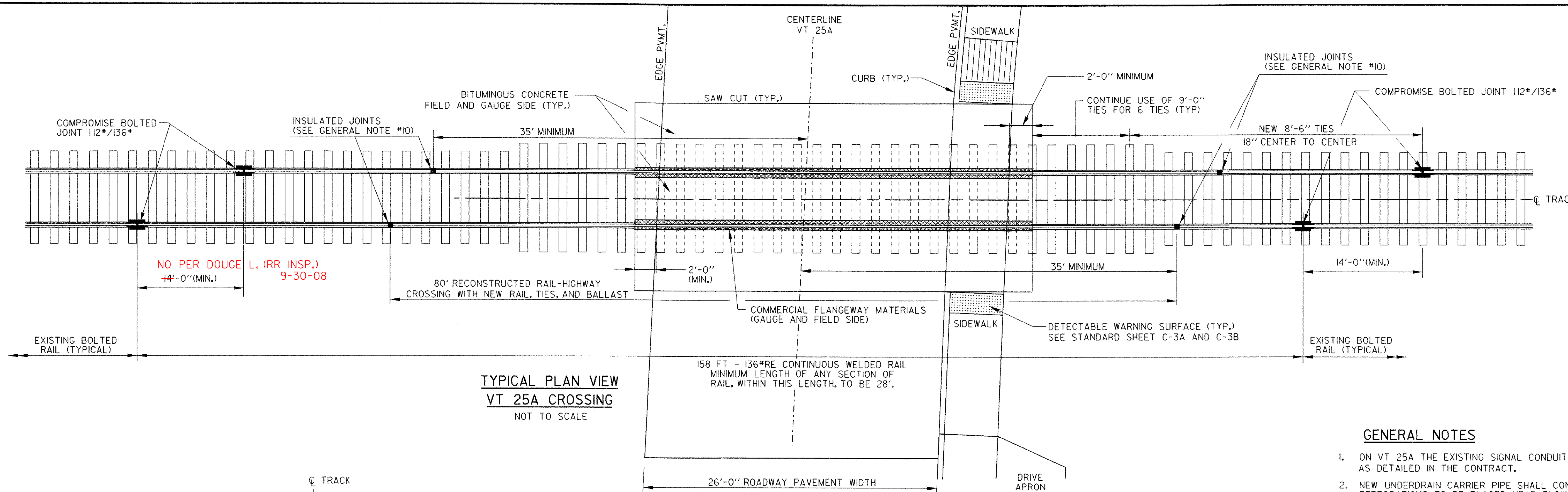


30+33  
Begin Railroad  
Construction

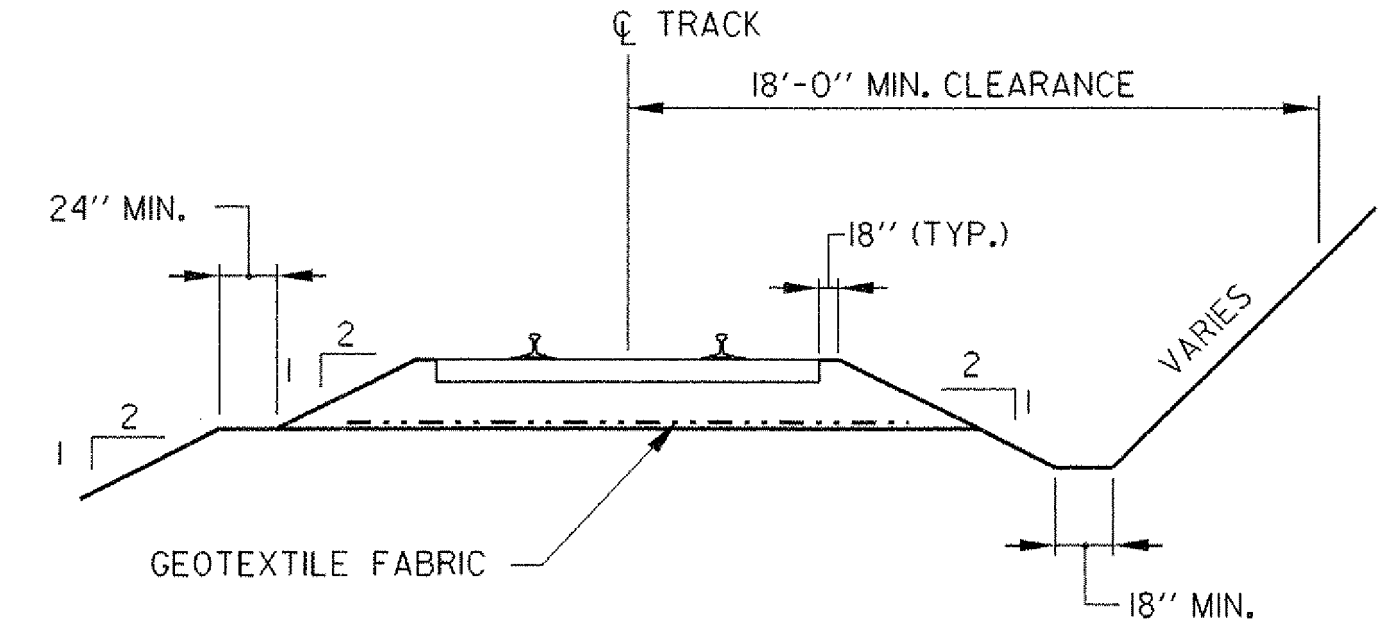
### RAILROAD CROSS SECTIONS

PROJECT NAME:	Fairlee	FILE NAME: /str5/98b118/sb118bdr.dgn	PLOT DATE: 07-MAY-2008
PROJECT NUMBER:	STP 040-K(2)	PROJECT LEADER: J. Kaplan	DRAWN BY: G. Shangraw
		DESIGNED BY: G. Shangraw	CHECKED BY: J. Kaplan
		sb118rx1.dgn	SHEET 20 OF 28

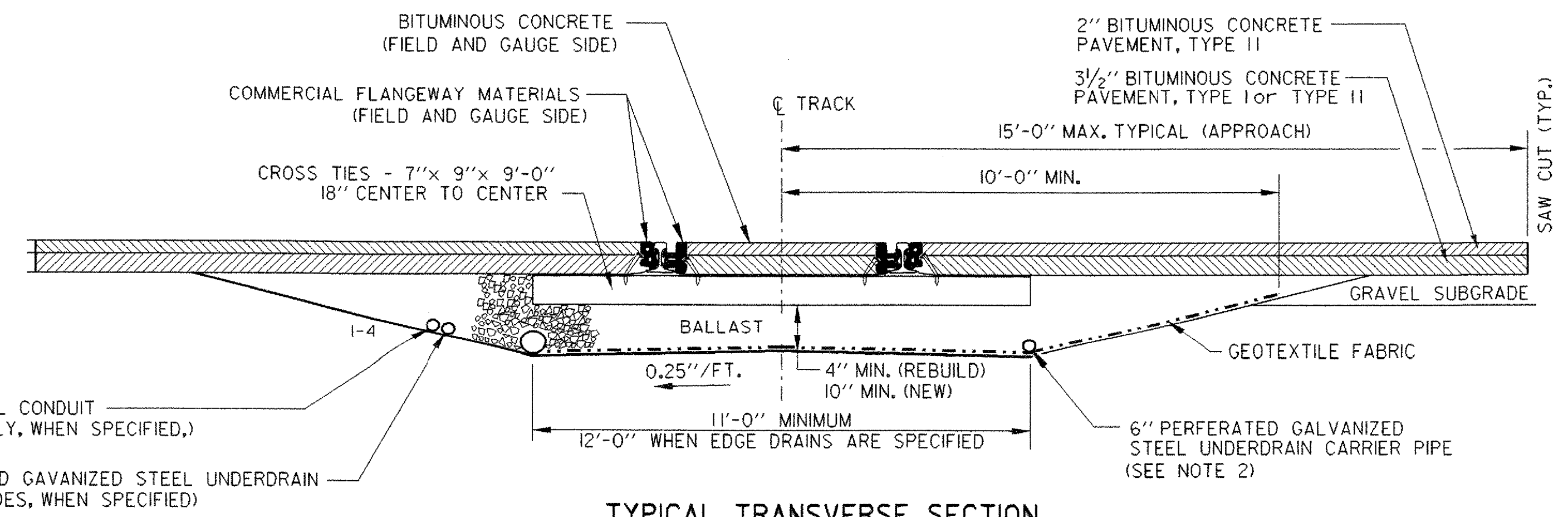




**TYPICAL PLAN VIEW  
VT 25A CROSSING**  
NOT TO SCALE



**TYPICAL SECTION  
RAILROAD MAINLINE**  
NOT TO SCALE



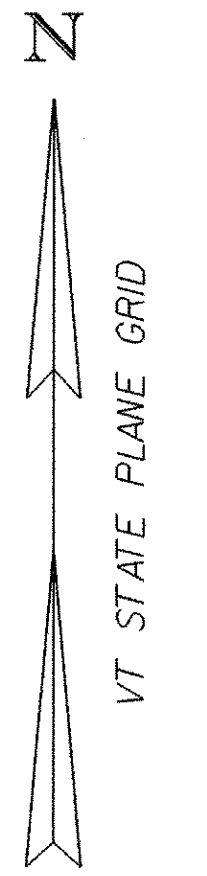
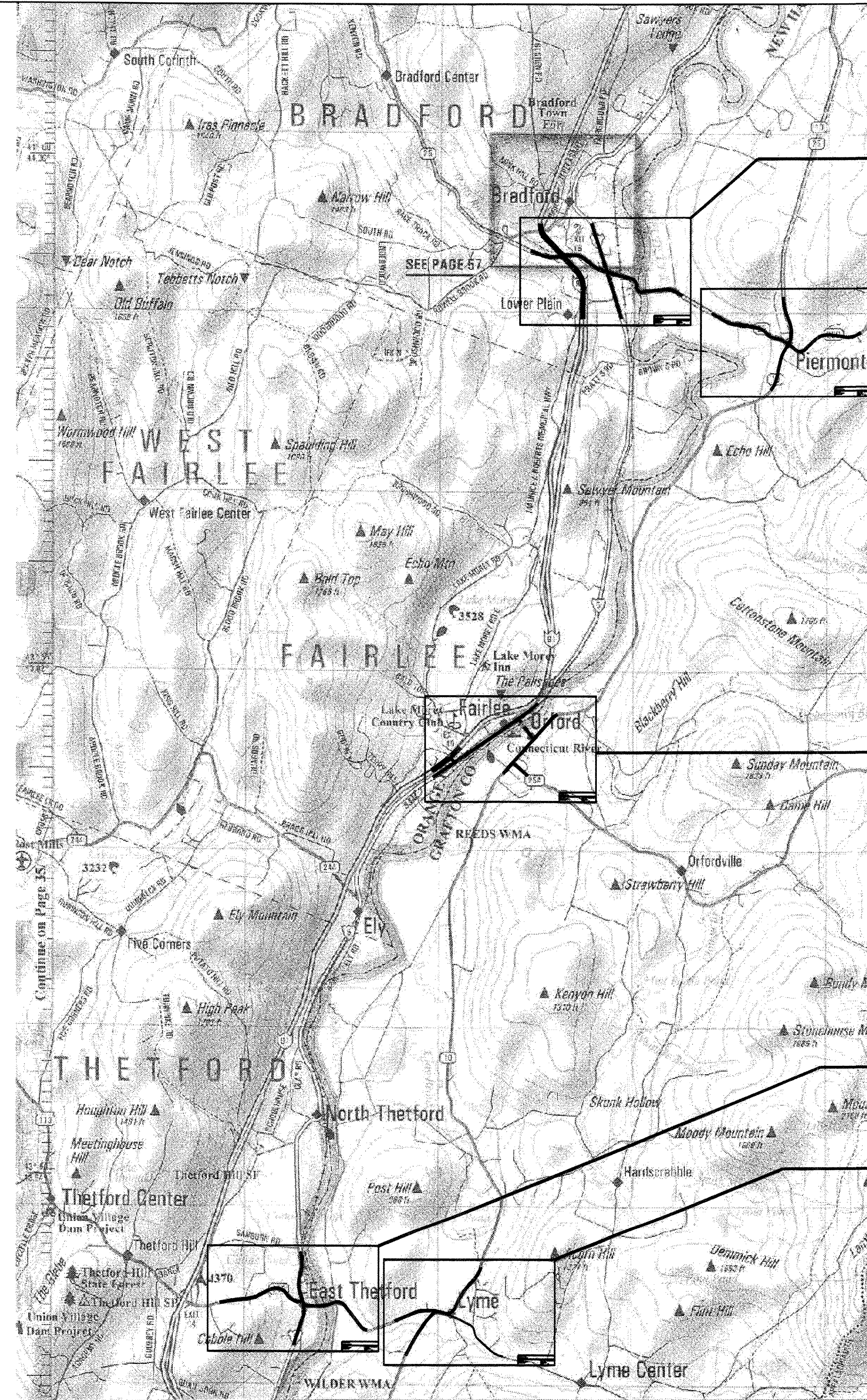
**TYPICAL TRANSVERSE SECTION  
VT 25A CROSSING**  
NOT TO SCALE

**GENERAL NOTES**

1. ON VT 25A THE EXISTING SIGNAL CONDUIT IS TO BE REPLACED WITH NEW WIRE AS DETAILED IN THE CONTRACT.
2. NEW UNDERDRAIN CARRIER PIPE SHALL CONNECT TO NEW DROP INLET. PERFORATIONS TO BE PLACED NEAR FLOW LINE OF PIPE.
3. ALL RAIL JOINTS WITHIN THE CROSSING AREA AND 50'-0" BEYOND WILL BE CROPPED AND WELDED IN ACCORDANCE WITH THE LATEST REVISION OF A.R.E.M.A. SPECIFICATIONS AT AN OFF-SITE ELECTRIC WELDING PLANT. WELDING CAN BE DONE IN FIELD UTILIZING THERMITE WELDING. WELDING JOINTS SHALL BE GROUND TO CONFORM TO THE SHAPE OF THE RAIL ON GAUGE AND FIELD SIDES.
4. TIE SPACING UNDER CONTINUOUS WELDED RAIL AREA SHALL BE 18 INCHES ON CENTER OR AS REQUIRED IN CROSSING PANEL AREA BY MANUFACTURER.
5. NEW 7"x 9"x 9'-0" AND 7"x9"x8'-6" TIES SHALL BE USED IN CROSSING AREA AS SHOWN.
6. TIE PLATES SHALL BE NEW 14 INCH PLATES, MANUFACTURED FOR THE RAIL SIZE USED. PLATES SHALL BE INSPECTED AND APPROVED BY THE RAILROAD AND THE ENGINEER. RAIL FASTENERS SHALL BE CUT TRACK SPIKES.
7. BALLAST SHALL EXTEND 18" BEYOND END OF TIES AND SLOPED 1:2 TO THE ROADBED. (SEE TYPICAL SECTION)
8. TYPE AND DESIGN OF COMMERCIAL FLANGWAY MATERIALS SHALL RECEIVE APPROVAL FROM THE ENGINEER AND THE RAILROAD.
9. MANUFACTURERS SPECIFICATIONS SHALL BE FOLLOWED FOR THE INSTALLATION OF COMMERCIAL FLANGWAY MATERIALS.
10. INSTALLATION OF INSULATED JOINTS: THE MAXIMUM STAGGER BETWEEN INSULATED JOINTS SHALL BE 4'-6", MINIMUM SHALL BE 3'-6".
11. APPROACH ASPHALT ROADWAY PAVING SHALL FOLLOW LATEST EDITION OF THE AGENCY'S STANDARD SPECIFICATION FOR CONSTRUCTION AND SHALL BE INSTALLED WITH PAVING MACHINE WITH MINIMUM 3" LIFTS (UNLESS OTHERWISE DIRECTED BY THE ENGINEER) AND SHALL BE LAID PARALLEL TO CROSSING TO MINIMIZE APPROACH SETTLEMENT.
12. EXISTING TRACK IS BOLTED RAIL, TRANSITION RAIL SHALL BE NEW AND MATCH RAIL SECTION THROUGH CROSSING.
13. CONTRACTOR SHALL ADD BALLAST, LINE, TAMP, AND SURFACE TRACK IN APPROACH AREAS TO OBTAIN A SMOOTH TRANSITION BETWEEN EXISTING AND PROPOSED TRACK TO THE SATISFACTION OF THE ENGINEER AND RAILROAD. THIS WORK IS INCIDENTAL TO THE RAIL-HIGHWAY CROSSING ITEM.

**RAILROAD CROSSING DETAILS**

PROJECT NAME:	FAIRLEE	FILE NAME:	98b18/railroaddetails.dgn	PLOT DATE:	07-MAY-2008
PROJECT NUMBER:	STP 040-I(2)	PROJECT LEADER:	J. KAPLAN	DRAWN BY:	VAOT
		DESIGNED BY:	G. SHANGRAW	CHECKED BY:	J. ROYER
			sbl18r.r.x.i		SHEET 21 OF 28



**TRAFFIC CONTROL SHEET #6  
US ROUTE 5 &  
VT. ROUTE 25**

**TRAFFIC CONTROL SHEET #5  
NH ROUTES  
10, 25, & 25C**

**TRAFFIC CONTROL SHEET #2  
PROJECT AREA**

**TRAFFIC CONTROL SHEET #3  
US ROUTE 5 &  
VT ROUTE 113**

**TRAFFIC CONTROL SHEET #4  
NH ROUTE 10 &  
E. THETFORD RD.**

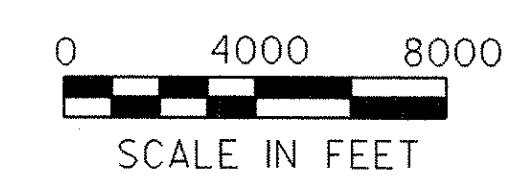
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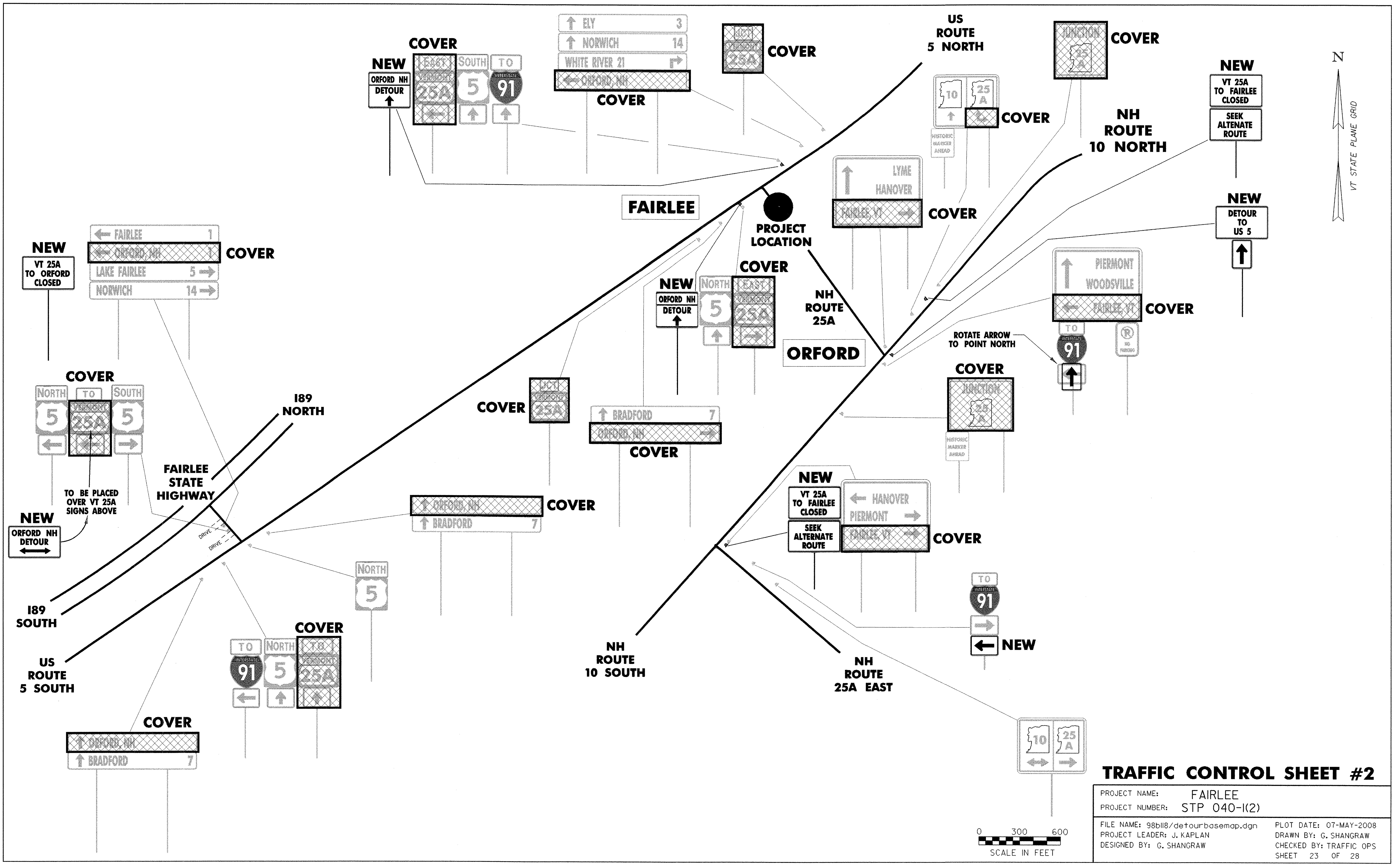
**INSTALLATION, MAINTENANCE AND REMOVAL OF DETOUR SIGNS TO BE PAID FOR UNDER PAY ITEM 641.10 - TRAFFIC CONTROL.**

**DETOUR IS ONLY TO BE IN PLACE WHEN RAILROAD CROSSING IS BEING INSTALLED, AND ONLY BETWEEN JUNE 16 AND AUGUST 15, 2008, INCLUSIVE. VT 25A TO BE CLOSED FOR A MAXIMUM OF 5 CONSECUTIVE DAYS.**

**TRAFFIC CONTROL SHEET #1**

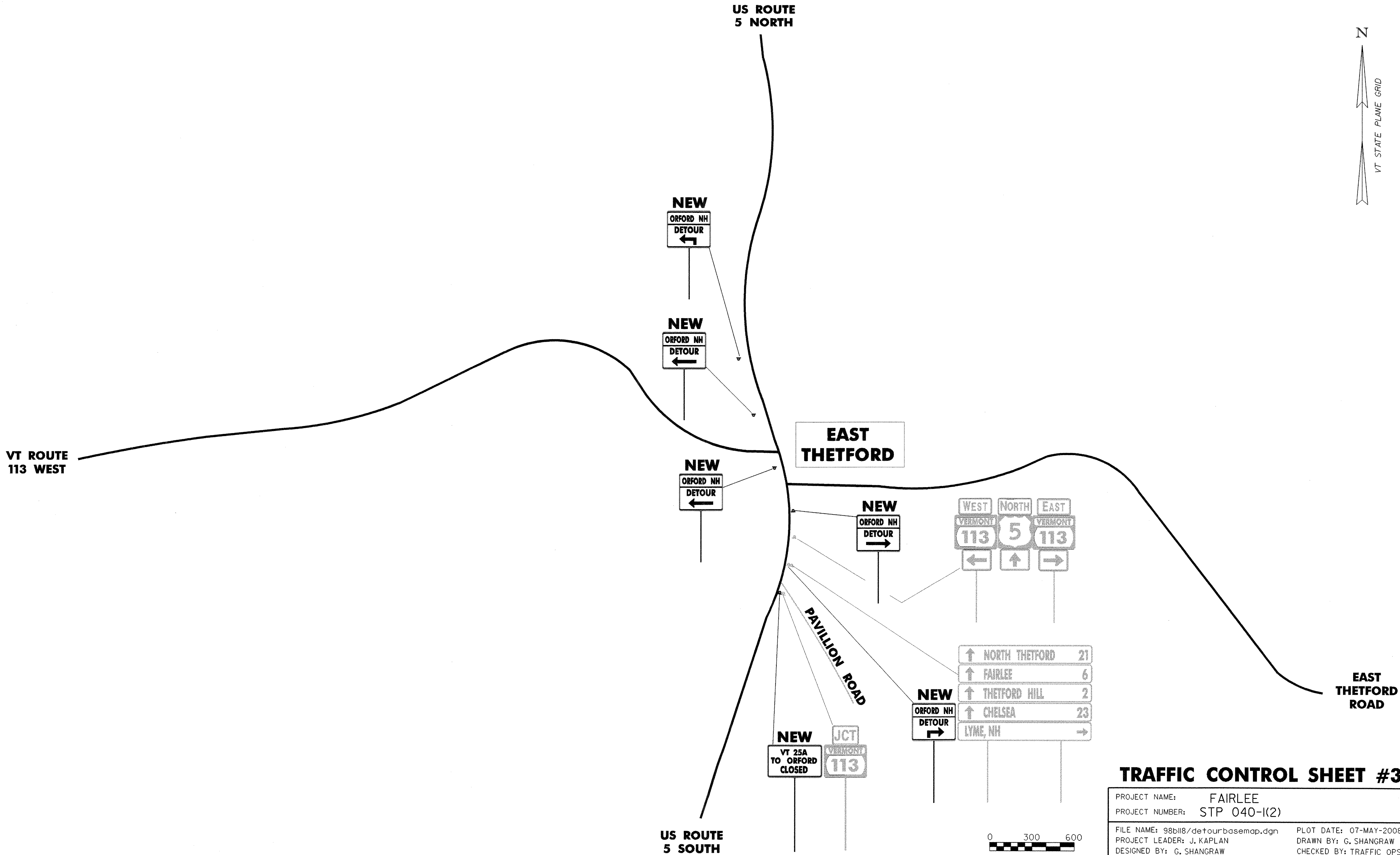
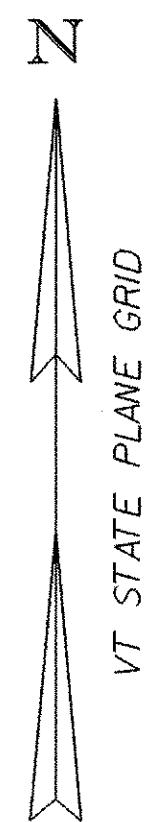
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PROJECT NUMBER:	STP 040-(12)	PROJECT LEADER:	J. KAPLAN	DRAWN BY:	G. SHANGRAW
		DESIGNED BY:	G. SHANGRAW	CHECKED BY:	TRAFFIC OPS
					SHEET 22 OF 28





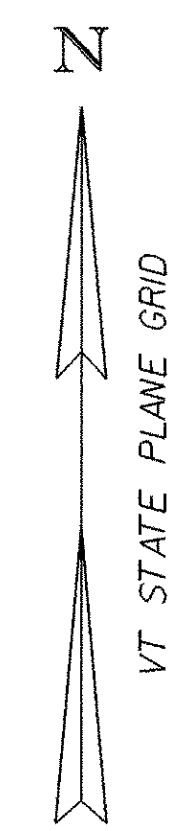
**TRAFFIC CONTROL SHEET #2**

PROJECT NAME: FAIRLEE	PROJECT NUMBER: STP 040-(K2)
FILE NAME: 98b118/detourbasemap.dgn	PLOT DATE: 07-MAY-2008
PROJECT LEADER: J. KAPLAN	DRAWN BY: G. SHANGRAW
DESIGNED BY: G. SHANGRAW	CHECKED BY: TRAFFIC OPS
	SHEET 23 OF 28



### TRAFFIC CONTROL SHEET #3

PROJECT NAME: FAIRLEE	PLOT DATE: 07-MAY-2008
PROJECT NUMBER: STP 040-1(2)	DRAWN BY: G. SHANGRAW
FILE NAME: 98b118/detourbasemap.dgn	CHECKED BY: TRAFFIC OPS
DESIGNED BY: G. SHANGRAW	SHEET 24 OF 28



NH  
ROUTE  
10 NORTH

LYME

NEW  
ORFORD NH  
DETOUR  
↑

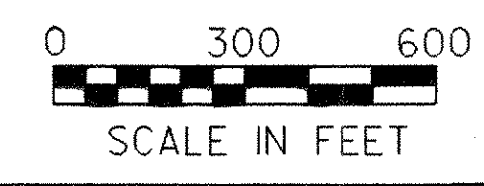
NEW  
DETOUR  
NORTH 10 SOUTH  
↑ ORFORD HANOVER →

NEW  
DETOUR  
NORTH 10  
← ORFORD  
← PIERMONT  
LYME CTR. ↑

EAST  
THETFORD  
ROAD

NH  
ROUTE  
10 SOUTH

DORCHESTER  
ROAD TO  
LYME CENTER



### TRAFFIC CONTROL SHEET #4

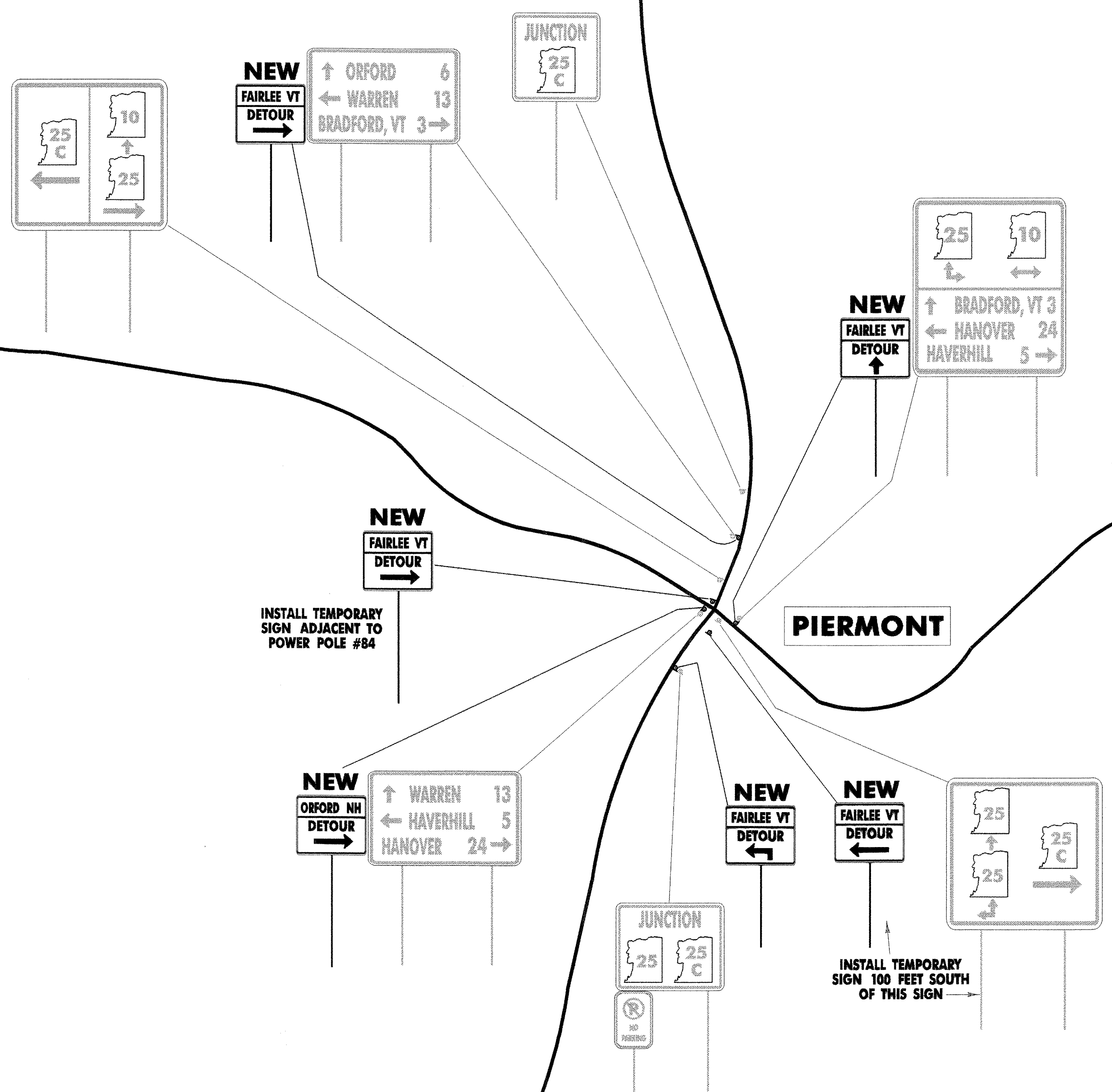
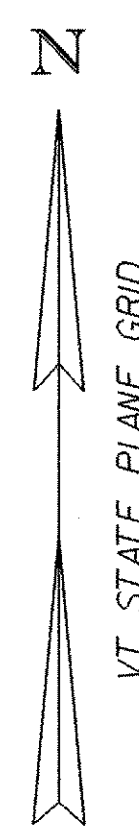
PROJECT NAME: FAIRLEE	PLOT DATE: 07-MAY-2008
PROJECT NUMBER: STP 040-1(2)	DRAWN BY: G. SHANGRAW
FILE NAME: 98b118/detourbasemap.dgn	CHECKED BY: TRAFFIC OPS
DESIGNED BY: G. SHANGRAW	SHEET 25 OF 28

NH  
ROUTE  
10 NORTH

NH  
ROUTE  
25 WEST

NH  
ROUTE  
25C EAST

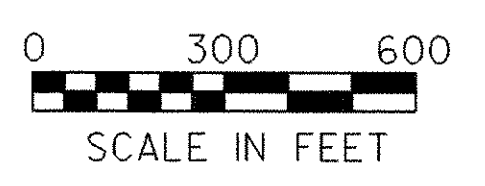
NH  
ROUTE  
10 SOUTH

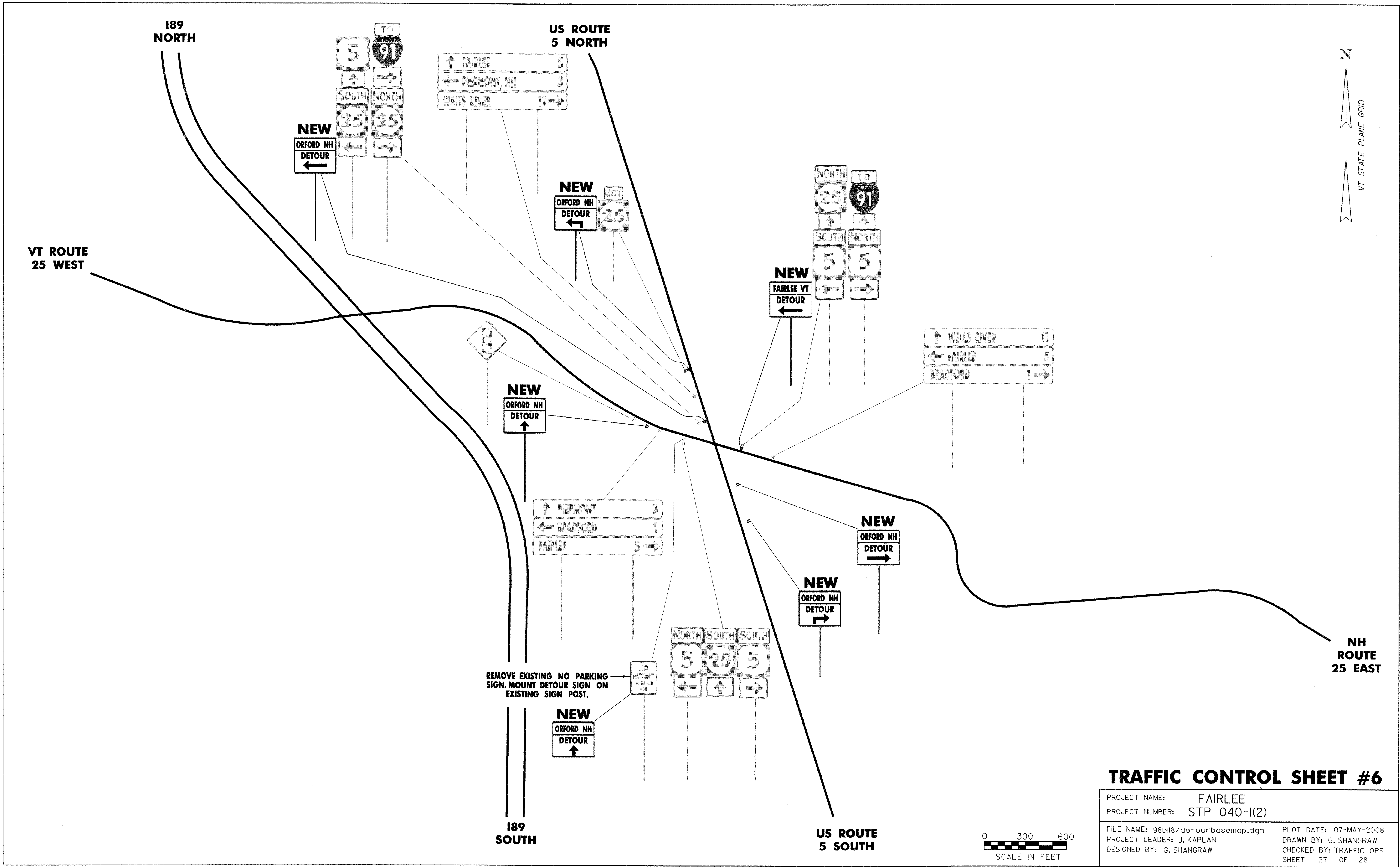


PIERMONT

**TRAFFIC CONTROL SHEET #5**

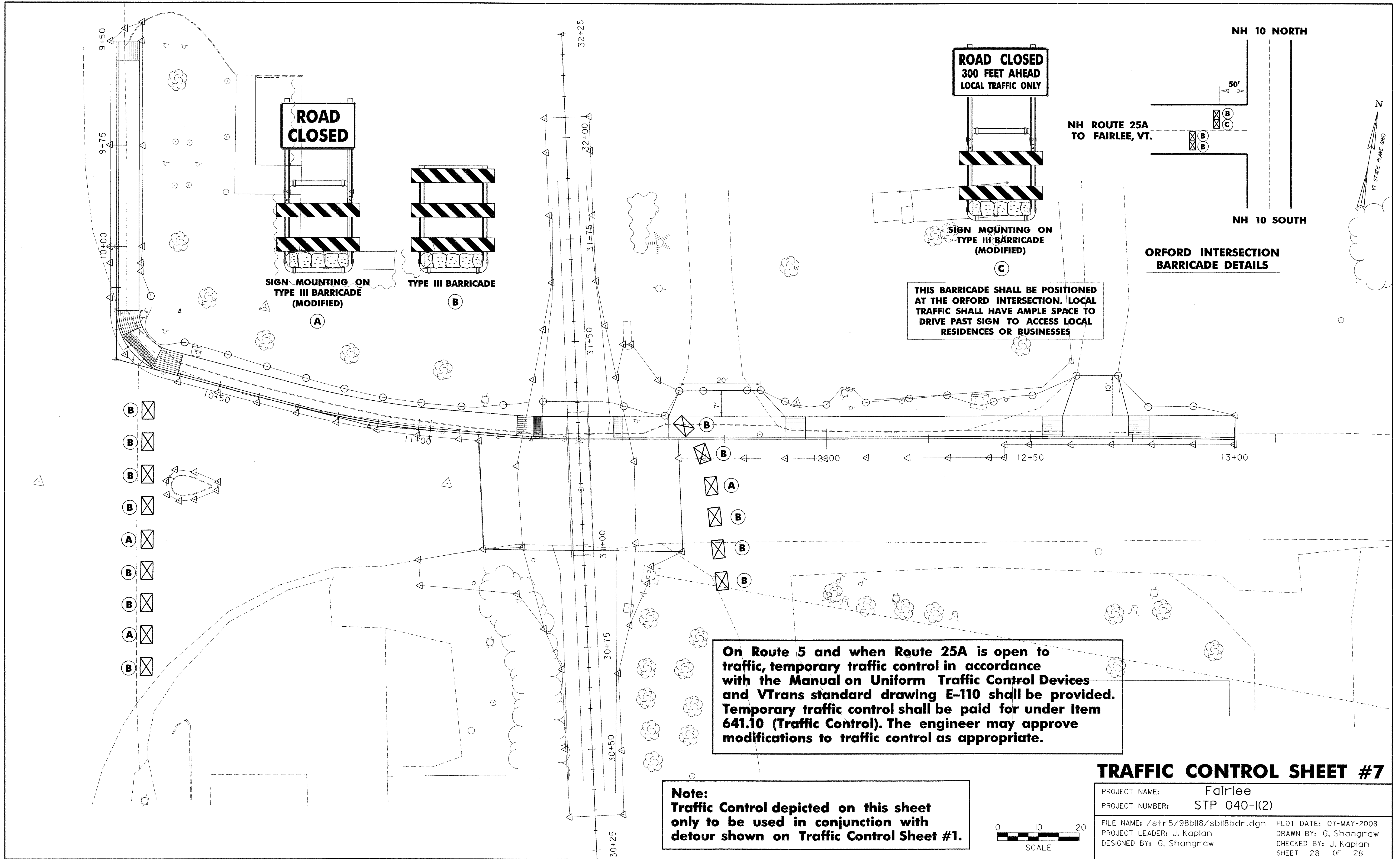
PROJECT NAME:	FAIRLEE	PLOT DATE:	07-MAY-2008
PROJECT NUMBER:	STP 040-K(2)	DRAWN BY:	G. SHANGRAW
FILE NAME:	98b118/detourbasemap.dgn	CHECKED BY:	TRAFFIC OPS
PROJECT LEADER:	J. KAPLAN	SHEET	26 OF 28





### TRAFFIC CONTROL SHEET #6

PROJECT NAME:	FAIRLEE	PLOT DATE:	07-MAY-2008
PROJECT NUMBER:	STP 040-K(2)	DRAWN BY:	G. SHANGRAW
FILE NAME:	98b118/detourbasemap.dgn	CHECKED BY:	TRAFFIC OPS
PROJECT LEADER:	J. KAPLAN	SHEET	27 OF 28
DESIGNED BY:	G. SHANGRAW		



**ROAD  
CLOSED**

**SIGN MOUNTING ON  
TYPE III BARRICADE  
(MODIFIED)**  
A

**TYPE III BARRICADE**  
B

**ROAD CLOSED  
300 FEET AHEAD  
LOCAL TRAFFIC ONLY**

**SIGN MOUNTING ON  
TYPE III BARRICADE  
(MODIFIED)**  
C

**THIS BARRICADE SHALL BE POSITIONED  
AT THE ORFORD INTERSECTION. LOCAL  
TRAFFIC SHALL HAVE AMPLE SPACE TO  
DRIVE PAST SIGN TO ACCESS LOCAL  
RESIDENCES OR BUSINESSES**

**NH ROUTE 25A  
TO FAIRLEE, VT.**

**NH 10 NORTH**

**NH 10 SOUTH**

**ORFORD INTERSECTION  
BARRICADE DETAILS**

**On Route 5 and when Route 25A is open to traffic, temporary traffic control in accordance with the Manual on Uniform Traffic Control Devices and VTrans standard drawing E-110 shall be provided. Temporary traffic control shall be paid for under Item 641.10 (Traffic Control). The engineer may approve modifications to traffic control as appropriate.**

**Note:  
Traffic Control depicted on this sheet  
only to be used in conjunction with  
detour shown on Traffic Control Sheet #1.**

**TRAFFIC CONTROL SHEET #7**

PROJECT NAME:	Fairlee	PLOT DATE:	07-MAY-2008
PROJECT NUMBER:	STP 040-I(2)	DRAWN BY:	G. Shangraw
FILE NAME:	/str5/98bl18/sbl18bdr.dgn	CHECKED BY:	J. Kaplan
PROJECT LEADER:	J. Kaplan	SHEET	28 OF 28
DESIGNED BY:	G. Shangraw		

